Biological & Medical Serials
STORAGE
R 31 I85 Ser.3 v.114 no.372
Biological & Medical Serials

THE DUBLIN JOURNAL

OF

MEDICAL SCIENCE:

[*Late* DUBLIN QUARTERLY JOURNAL OF MEDICAL SCIENCE.]

CONTAINING

ORIGINAL COMMUNICATIONS,

REVIEWS, ABSTRACTS, AND REPORTS,

IN

Medicine, Surgery, and Collateral Sciences.

Edited by Sir J. W. MOORE, B.A., M.D., Univ. Dubl.; F.R.C.P.I.

THIRD SERIES.

No. 372.

DECEMBER,

1902.

402408 k
27.4.42

DUBLIN: FANNIN & CO., LTD., GRAFTON-STREET,

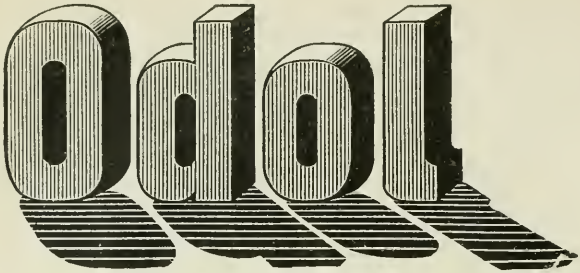
To whom Communications for the Editor and Books for Review are to be addressed.

LONDON: SIMPKIN, MARSHALL & CO.

EDINBURGH: JAMES THIN.

AGENT IN AMERICA—GUSTAV E. STECHERT, 9 EAST SIXTEENTH-ST., N.Y.

ANNUAL SUBSCRIPTION, £1.—SINGLE NUMBER, 2s.



The Modern Hygiene of the Mouth.

It is well known that modern hygiene sets but little value on tooth-powders or tooth-pastes as teeth cleansers—these preparations being serviceable only in scouring the outward and visible surface of the teeth in a mechanical way, whereas the cavities and fissures, the very seat of decay in the teeth, are more often filled up than cleansed by the process, the cause in itself of the injurious effects that so frequently ensue from the use of the tooth-powders and pastes known to the trade. In the case of tooth-soaps and pastes especially, the presence of alkalies, to be detected even in the best soaps, is particularly prejudicial to the teeth.

To arrive, then, at a rational method of preserving the teeth, as the epoch-making experiments of Miller have already demonstrated, can only be done by the use of some antiseptic lotion; the decomposing and fermenting processes perpetually going on in the mouth cavity, and which is the cause of destruction in teeth, can only be neutralised by such means.

Hüppe has laid down the following three essential qualities for a mouth lotion for daily use: —

(*a*) Absolute innocuousness and freedom from venomous organisms for the teeth as well as for the mucous membrane;
(*b*) Sufficient bactericidal strength;
(*c*) Agreeable taste and odour.

Preparations which irritate the mucous membrane, such as Calcium Permanganate, Formaldehyde, whether soaps or other compounds, are here as little desirable as acid mouth lotions, which calcine the teeth.

A variety of the most-used mouth-washes have now been tried with the view of fulfilling the above conditions, when it has been proved that of all the well-known mouth-washes ***ODOL alone embraces all these three qualifications.***

That which more especially characterises Odol is, that taken by itself, its action is only mildly antiseptic, but that it works as a most powerful antiseptic when in contact with the mucous membrane and the living cells. Odol alone has this peculiar action, in accordance with a principle (one, be it said, hitherto not yet used in connection with mouth lotions), and it is this rare property that makes Odol, from a hygienic point of view, so valuable; for, in rinsing the mouth, microscopically small drops of Odol remain hanging to the mucous membrane, covering the whole oral cavity with antisepticum, which, coming in contact with the mucous membrane, slowly splitting up and producing the antiseptically-acting particles, whose effects continue for hours afterwards, and not merely during the brief period occupied by the rinsing of the mouth.

This slow and continuous action, and its perfectly innocuous effect, distinguish Odol from all hitherto familiar antiseptics, and the most eminent analytical discoveries of our time have pronounced Odol to be ***the most efficacious preparation for the daily care of the mouth and teeth.***

Free Samples and Literature will be sent on application to the

ODOL CHEMICAL WORKS, 26 Southwark Bridge Road, London, S E.

"THE LANCET" on

VAN HOUTEN'S COCOA.

"In a recent analysis
" which we have made, the results
" distinctly indicate the advantage of
" VAN HOUTEN'S PROCESS of manu-
" facture. Thus this Cocoa yields
" a decoction containing a maximum
" proportion of the valuable food
" constituents of the bean, and what
" is of more importance still, these
" are presented in a condition more
" easy of assimilation and digestion
" than in Cocoa not so prepared."

JUST PUBLISHED. Demy 8vo. 3s. 6d. net.

MEDICAL ETHICS:

A Guide to Professional Conduct for Students and Practitioners.

By ROBERT SAUNDBY, M.D. (Edin.), F.R.C.P. (Lond.), LL.D.;

Prof. of Med. Birm. Univ.; Phys. Gen. Hosp. Birm.; Late Exam. in Med. to Examination Board for England.

This book is largely founded upon actual cases and decisions which have been given in the leading Medical Journals during the past few years.

20th Year. 900 pp. 7s. 6d. net.

MEDICAL ANNUAL, 1902:

The Year Book of Treatment and Practitioner's Index.

Copiously Illustrated, and with **25 FULL-PAGE PLATES,** Plain and in Colour.

"Few indeed are the subjects upon which the busy practitioner will not find some information in this book." *Lancet.*

"Nothing stale or unprofitable finds a place in this excellent volume."—*Med. Press & Circ.*

2nd Edition. Revised and Enlarged. 9s 6d. net.

AN INTRODUCTION TO DERMATOLOGY.

By NORMAN WALKER, M.D.,

Assist. Phys. for Skin Diseases in Edinburgh Roy. Infirm.

With **43 Full-Page PLATES** (18 in Colour) and numerous Illustrations.

"The book holds a unique position as a Student's Text-Book, and there are few qualified men who would not gain many valuable hints from reading it."—*Quar. Med. Journ.*

"The perusal is a delight."—*Edin. Med. Journ.*

Large 8vo. 680 pp. 10s. 6s. net.

OPERATIVE & PRACTICAL SURGERY

For Students and Practitioners.

By THOS. CARWARDINE, M.S. (Lond.), F.R.C.S.;

Assist. Surg. Bristol Royal Infirmary.

Illustrated by more than **500 original Drawings** by the Author, and numerous **Woodcuts.**

"Very comprehensive . . . Many clear and excellent illustrations."—*Brit. Med. Journ.*

"One of the best manuals we have met with for a long time."—*Birm. Med. Rev.*

Illustrated. 8vo. 3s. net.

PULMONARY TUBERCULOSIS: Its Treatment and Cure. By Prof. CARLO RUATA, M.D., Prof. of Materia Medica in the Univ. of Perugia.

"Sensible and practical little book."—*Lancet.*

"Brimful of information and suggestion on a most important and difficult problem, and we confidently recommend it." *Liv. Med. Chir. Jour.*

2nd Edition. 7th Thousand. Small 8vo. 200 Original Drawings. 2s. 6d.

"FIRST AID" TO THE INJURED AND SICK: An Advance Ambulance Handbook. By F. J. WARWICK, B.A., M.B.(Cantab.), and A. C. TUNSTALL, M.D., F.R.C.S.(Ed.)

"One of the best we have seen." *Practitioner.*

"We predict success for a book so eminently practical, and, at the same time, readable."—*Glasgow Med Jour.*

2s. per Sheet, or 27s. 6d. the set of 16 on roller with nickeled head.

Adopted by the War Office and London School Board.

LARGE SHEET "FIRST AID" DIAGRAMS: Being Enlargements of the Principal Illustrations in the above book; for Lecturing Purposes and Class Illustrations. Sheets 40 in. by 26 in.

"Extremely well done, and the price is very moderate."—*Quart. Med. Jour.*

BRISTOL: JOHN WRIGHT & CO.

LONDON: SIMPKIN, MARSHALL, HAMILTON, KENT & CO., Ltd.

INDIAN MEDICAL SERVICE.

INDIA OFFICE,
13th November, 1902.

AN EXAMINATION

FOR

NOT LESS THAN

13 APPOINTMENTS

IN

His Majesty's Indian Medical Service

WILL BE HELD

In LONDON, commencing 13th JANUARY, 1903,

Copies of Regulations for the Examination, with information regarding the Pay and Retiring Allowances, &c., of Indian Medical Officers, may be obtained from the Military Secretary, India Office, London, S.W., to whom applications for admission to the Examination, with the necessary Certificates, should be sent so as to reach him not later than 31st December, 1902.

E. STEDMAN,
Major-General, Military Secretary.

ARMY MEDICAL SERVICE.

AN EXAMINATION OF CANDIDATES

FOR NOT LESS THAN

30 COMMISSIONS

IN

The Royal Army Medical Corps,

WILL BE HELD

On the 6th JANUARY, 1903, and following days.

Applications to Compete should be made to the Director-General, Army Medical Service, 18 Victoria-street, S.W., not later than the 22nd December, on which date the list will be closed.

Candidates who are over the regulated limit of age at the date of the Examination will be permitted to deduct from their actual age any period of Service in the Field, after 1st October, 1899, that they could reckon towards Retired Pay and Gratuity, if such deduction will bring them within the age limit.

DR.'s Letter
Season 1901-2
No. 1943

————————, North Devon, Feb. 23rd, 1902.

"The great advantage of SCOTT'S EMULSION appears to me to be that it has no cumulative action. By which I mean that sensitive stomachs are not upset by it even after taking it for prolonged periods. I have often come across children who could not go on with small doses of other preparations of Cod Liver Oil for any length of time; but the same children have been able to take SCOTT'S EMULSION for months without any stomachic trouble. Consequently I prescribe it in preference to any other preparation, and look upon it as an ideal form in which to administer Cod Liver Oil."

————————, L.R.C.P., L.R.C.S.

16-oz. Bottle, with formula, free to any physician, surgeon, or nurse desiring to test SCOTT'S EMULSION. SCOTT & BOWNE, LTD., 10–11 Stonecutter Street, Ludgate Circus, London, E.C.

THE TEST OF TIME AND EXPERIENCE.

THIRTY YEARS OF CONFIDENCE

On the part of the Profession have established, beyond all question, that

SYR. HYPOPHOS. CO. FELLOWS

— IS THE —

REMEDY—PAR EXCELLENCE—

In Anæmia, Neurasthenia, Bronchitis, and Influenza, and during Convalescence from exhausting diseases.

It contains—Hypophosphites of Iron, Quinine, Strychnine, Lime, Manganese, and Potash. Each fluid drachm contains the equivalent of 1-64th grain of pure Strychnine.

SPECIAL NOTE.—Fellows' Syrup of Hypophosphites is **NEVER SOLD IN BULK.** and is advertised *only* to the Medical Profession. Physicians are cautioned against worthless substitutes.

Medical Letters may be addressed to—

Mr. FELLOWS, 94 Paul Street, Finsbury, London, E.C.

LITERATURE OF VALUE WILL BE SENT ON APPLICATION.

THE NATURAL MINERAL WATERS OF

VICHY

(STATE SPRINGS.)

CÉLESTINS. For Diseases of the Kidneys. Gravel, Gout Rheumatism, Diabetes, &c.

GRANDE-GRILLE. For Diseases of the Liver and Biliary Organs, &c.

HÔPITAL. For Stomach Complaints.

VICHY-ÉTAT PASTILLES or 3 Pastilles after each meal facilitates digestion.

VICHY-ÉTAT COMPRIMÉS For instantaneously producing an effervescing alkaline water.

Samples and Pamphlets free to Members of the Medical Profession on Application.

CAUTION.—Each bottle from the STATE SPRINGS bears a neck label, with the words ***"VICHY-ÉTAT"*** and the name of the ***Sole Agents:—***

INGRAM & ROYLE, Ltd., EAST PAUL'S WHARF,

26 UPPER THAMES STREET, LONDON, E.C.

And at LIVERPOOL and BRISTOL.

BOOKS AND PAMPHLETS RECEIVED—DECEMBER, 1902.

1. Anæstheties. By J. Blumfield, M.D., Cantab. Medical Monograph Series, No. 7. London: Baillière, Tindall & Cox. 1902. Cr. 8vo. Pp. 109.

2. Local Government Board. Reports and Papers on Bubonic Plague. By Dr. R. Bruce Low. London: Eyre & Spottiswoode. 1902. 8vo. Pp. xii. + 446.

3. Report of Five Cases of Laparotomy for Intestinal Obstruction. By August Schachner, M.D., of Louisville, Kentucky. Reprint. 1902. Pp. 7.

4. Census of Ireland, 1901. Part II. General Report, with illustrative Maps and Diagrams, Tables, and Appendix. Dublin: Browne & Nolan. 1902. Folio. Pp. xvii. + 640.

5. Practical Physiology. By A. P. Beddard, M.A., M.D.; J. S. Edkins, M.A., M.B.; Leonard Hill, M.B., F.R.S.; J. J. R. MacLeod, M.B.; and M. S. Pembrey, M.A., M.D. London: Edward Arnold. 1902. 8vo. Pp. 195.

6. The Selection of Consumptive Cases for Sanatorium Treatment. By T. N. Kelynack, M.D., M.R.C.P. London: The Scientific Press. 1902. Pp. 26.

7. The Messenger of Wisdom and Israel's Guide. Vol. VI. No. 44. New Brompton, Kent, England. Sunday, November 2, 1902.

8. La Beauté de la Femme. Par le Dr. C. H. Stratz. Traduit de l'allemand par Robert Waltz. Paris: Gaultier, Magnier et Cie. 1902. 8vo. Pp. 337.

9. Manual of Bacteriology. By Robert Muir, M.A., M.D., F.R.C.P. Ed.; and James Ritchie, M.A., M.D., B.Sc. Third Edition. Edinburgh and London: Young J. Pentland. 1902. 8vo. Pp. xviii. + 548.

10. Nordisk Tidsskrift for Terapi. 1 Hefte. Oktober, 1902. Köbenhavn: Gyldendalske Boghandels Forlag.

11. A Text-book of Surgical Principles and Surgical Diseases of the Face, Mouth, and Jaws. By H. Horace Grant, A.M., M.D. Philadelphia and London: W. B. Saunders & Co. 1902. 8vo. Pp. 231.

12. The Elements of Bacteriological Technique. By J. W. H. Eyre, M.D., M.S., F.R.S. Edin. Philadelphia and London: W. B. Saunders & Co. 1902. 8vo. Pp. 371.

13. Diseases of the Pancreas and their Surgical Treatment. By A. W. Mayo Robson, F.R.C.S., and B. G. A. Moynihan, M.S. (Lond.), F.R.C.S. Philadelphia and London: W. B. Saunders & Co. 1902. 8vo. Pp. 293.

14. The Pharmacological Action and Therapeutic Uses of the Nitrites and Allied Compounds. By the late Daniel John Leech, M.D. (Lond.), D.Sc.(Viet.), F.R.C.P. Edited by R. B. Wild, M.D. (Lond.), M.Sc. (Viet.), M.R.C.P. Manchester: Sherratt & Hughes. 1902. 8vo. Pp. 187 + viii.

15. The Medical Examiner and Practitioner. October, 1902. New York.

16. A Handbook of the Open-Air Treatment. By Dr. Charles Reinhardt and Dr. David Thomson. London: John Bale, Sons, & Danielsson. 1902. 8vo. Pp. xvi. + 176.

17. The Transactions of the Edinburgh Obstetrical Society. Vol. XXVII. Session, 1901-1902. Edinburgh: Oliver & Boyd. 1902. 8vo. Pp. xxviii. + 250.

18. A Treatise on Massage. By Douglas Graham, M.D., of Boston, Massachusetts. Third Edition. Philadelphia and London: J. B. Lippincott & Co. 1902. 8vo. Pp. 462.

19. Transactions of the Clinical Society of London. Vol. XXXV. London: Longmans, Green & Co. 1902. 8vo. Pp. liii. + 235.

20. Ueber rationelle Zusammensetzung und therapeutische Verwendung der Mineralheilwässer und der Heilbäder für Sommercuren. Von. Dr. W. Jaworski. Berlin: Max Brandt und Co. 1902. Reprint. Pp. 25.

21. The Malarial Fevers of British Malaya. By Hamilton Wright, M.D. (M'Gill). London: J. & A. Churchill. 1902. 8vo. Pp. 98.

22. Medecine. Extrait du "Catalogue général." Paris: C. Naud, Editeur. 1902.

23. Proceedings of the Philadelphia County Medical Society. September, 1902. Vol. XXIII. No. 1. New Series. Vol. IV. Philadelphia, U.S.A.

24. Year-Book of the Scientific and Learned Societies of Great Britain and Ireland. Nineteenth Annual Issue. London: Charles Griffin & Co. 1902. 8vo. Pp. viii. + 295.

25. Some Practical Aspects of the Plague at Sydney. By Frank Tidswell, M.B., Ch.M., D.P.H. London: The Sanitary Institute. 1902. Pp. 32.

26. Small-Pox Possibilities and Obligations. By Frank Tidswell, M.B., Ch.M. (Sydney), D.P.H. (Camb.), Sydney. Reprint. 1901. Pp. 8.

27. A Preliminary Note on the Serum-Therapy of Snake-bite. By Frank Tidswell, M.B., Ch.M., D.P.H. Sydney. 1902. Reprint. Pp. 12.

28. Presidential Address delivered before the Canadian Medical Association, Montreal, September 10th, 1902. By Francis J. Shepherd, M.D. Montreal. 1902. Reprint. Pp. 11.

29. Notes on a Case of Accessory Pancreas. By Albert G. Nicholls, M.A., M.D. Montreal. 1900. Reprint. Pp. 5.

30. A Case of Tuberculosis primarily of intestinal origin combined with Tertiary Syphilis. By Albert George Nicholls, M.A., M.D. Montreal. 1902. Reprint. Pp. 11.

31. On a somewhat rare form of Chronic Inflammation of the Serous Membranes (Multiple Progressive Hyaloserositis). By Albert George Nicholls, M.A., M.D. Montreal. April, 1902. Pp. 80.

OPEN-AIR TREATMENT of DISEASES of the LUNGS.

DR. W. DENTON JOHNS' SANATORIUM,

Alderney Manor, Parkstone, Dorset.

An ideal spot, beautifully situated about three miles from Bournemouth. 600 acres of pine woods and heather lands. Specially built for the cure on the **"HUT SYSTEM,"** under the personal supervision of Dr. JOHNS, who resides upon the premises.

SUN BATHING A SPECIALITY.

For terms and particulars apply Secretary.

MEDICAL PLATES.

MEDICAL PLATES and ILLUSTRATIONS

EXECUTED IN VARIOUS COLOURS IN THE BEST STYLE BY

JOHN FALCONER,

53 UP. SACKVILLE STREET, DUBLIN.

At the last International Congress of Surgeon Dentists held in Paris, it was declared that ODOL is the most efficacious mouth-wash which has hitherto been placed upon the market

Free Samples and Literature will be sent on application to the Odol Chemical Works, 26 Southwark Bridge Road, London, S.E.

THE DUBLIN JOURNAL

OF

MEDICAL SCIENCE.

CONTENTS.

THIRD SERIES, No. 372.—DECEMBER 1, 1902.

PART I.—ORIGINAL COMMUNICATIONS.

PAGE

ART. XIX.—Unreduced Subclavicular Dislocation of the Head of the Humerus. By EDWARD H. BENNETT, M.D., F.R.C.S.I.; Professor of Surgery in the University of Dublin; Surgeon to Sir Patrick Dun's Hospital, Dublin, - - - - 401

ART. XX.—The Prophylactic Treatment of Enteric Fever by Inoculation. By WALTER C. STEVENSON, M.D., B.Ch., B.A.O., D.P.H., B.A. Univ. Dubl.; Lieutenant, Royal Army Medical Corps, Royal Infirmary, Phœnix Park, Dublin, - - - 405

ART. XXI.—Errors in Diagnosis, Avoidable and Unavoidable. By ALFRED PENNY, L.R.C.P.I., L.R.C.S.I., - - - 410

ART. XXII.—Mouth-Washes and the Integrity of the Teeth. By W. H. TRICK, L.D.S. Eng., - - - - - 417

PART II.—REVIEWS AND BIBLIOGRAPHICAL NOTICES.

1. The Report of the Yellow Fever Expedition to Pará of the Liverpool School of Tropical Medicine and Medical Parasitology. By H. E. DURHAM, - - - - - - - 422

2. A Manual of Bacteriology, Clinical and Applied, with Appendix on Bacterial Remedies, &c. By RICHARD T. HEWLETT, M.D., &c.; Professor of General Pathology and Bacteriology, King's College, London, &c. Second Edition, - - - - 424

3. Clinical Essays and Lectures. By HOWARD MARSH, F.R.C.S.; Surgeon to, and Lecturer on Surgery at, St. Bartholomew's Hospital; Consulting Surgeon to the Hospital for Sick Children; President of the Clinical Society of London; Hon. Member of the Medical Society, State of New York, - - - 425

PAGE

4. A Handbook of Surface Anatomy and Landmarks. By BERTRAM C. A. WINDLE, F.R.S., Sc.D., M.D., M.A. (Dublin); Professor of Anatomy in the University of Birmingham. Third Edition, - 426
5. Aids to Dental Anatomy and Physiology. By ARTHUR S. UNDERWOOD, M.R.C.S., L.D.S. Eng., &c. Second Edition, - - 426
6. Merck's Index. II. Auflage (Second Edition), - - - 427
7. Atlas of Illustrations of Clinical Medicine, Surgery, and Pathology. Compiled for the New Sydenham Society. Fasciculus XIV. (Double Number). Fasciculi I. and II. of New Series, - - 428
8. A Manual of Surgery for Students and Practitioners. By WILLIAM ROSE, M.B., B.S. Lond., F.R.C.S.; Professor of Clinical Surgery in King's College, London, and Sonior Surgeon to King's College Hospital, &c.; and ALBERT CARLESS, M.S. Lond., F.R.C.S.; Surgeon to King's College Hospital, and Teacher of Operative Surgery in King's College, London; Examiner in Surgery to Glasgow University, &c. Fifth Edition, - - 430
9. The Temperance Reader. By the REV. W. H. COLOGAN and SIR FRANCIS RICHARD CRUISE, D.L., M.D. (Univ. Dub.); Honorary Physician in Ordinary to His Majesty King Edward VII., in Ireland, - - - - - - - 431

PART III.—SPECIAL REPORTS.

REPORT ON PUBLIC HEALTH. By SIR C. A. CAMERON, C.B., M.D.; D.P.H. (Camb.); M.R.C.P.I.; ex-President, Hon. Dip. Public Health, and Professor of Hygiene and Chemistry, R.C.S.I.; Vice-President and ex-President of the Royal Institute of Public Health, and of the Society of Public Analysts; Medical Officer of Health for Dublin; Hon. Member of the Hygienic Societies of France, Belgium, Paris, Bordeaux, and of the Academy of Medicine, Sweden, the State Medical Society of California, &c.; Examiner in Sanitary Science, Royal University of Ireland; Member of the Army Sanitary Committee:—

Sanitation and Vital Statistics in Japan, - - - - 433
Bacteriological Reseaches, - - - - - 435
Infected Shellfish, - - - - - - 438
Ventilation of Sewers, - - - - - - 439
Combined Drains, - - - - - - 440
The Plague in New South Wales, - - - - - 441
Inspection of Dairies, - - - - - 442
Disinfection by Formaldehyde, - - - - - 444

PART IV.—MEDICAL MISCELLANY.

Two Careers Compared: open to the Newly Qualified Medical Man. By L. H. ORMSBY, M.D., F.R.C.S., President of the Royal College of Surgeons in Ireland; one of the Senior Surgeons to the Meath Hospital and County Dublin Infirmary, - - 445

PAGE

ROYAL ACADEMY OF MEDICINE IN IRELAND:—

SECTION OF PATHOLOGY.

Dislocation of Shoulder. By PROFESSOR E. H. BENNETT, - 460
Adenoma of the Liver. By DR. EARL, - - - - 460
Cavernoma of the Liver. By DR. EARL, - - - - 461
An Epithelial Tumour of the Gall-bladder. By PROFESSOR J. A. SCOTT, - - - - - - - - - 462
Conglobate Tuberculous Tumour of the Choroid. By MR. ARTHUR BENSON and DR. EARL, - - - - - 462

SANITARY AND METEOROLOGICAL NOTES. Compiled by SIR J. W. MOORE, B.A., M.D. Univ. Dubl.; F.R.C.P.I.; F.R. Met. Soc.; Diplomate in State Medicine and ex-Sch. of Trin. Coll. Dubl.:—
Vital Statistics for Four Weeks ending Saturday, November 1, 1902, 464
Meteorology—Abstract of Observations made at Dublin for the Month of October, 1902, - - - - - 469

PERISCOPE:—
Egyptian Medical Congress, - - - - - 421
Scientific Research at Khartoum, - - - - - 459
The Contagiousness of Pneumonia, - - - - 463
Literary Intelligence, - - - - - - 463
Alvarenga Prize of the College of Physicians of Philadelphia, - 472

INDEX, - - - - - - - - - 473

Royal College of Physicians of London.

THE WEBER-PARKES PRIZE AND MEDALS.

PRIZE of 150 GUINEAS and TWO SILVER MEDALS.

The next award will be made in 1903, and the Adjudicators have selected as the subject of the Essay for that occasion:—

"The Channels of Infection in Tuberculosis, together with the conditions, original or acquired, which render the different tissues vulnerable."

"The Essay must be based on original work and observations (experimental or other) of the author, and must include a detailed exposition of the methods employed and their mode of application."

All Essays, together with any preparations made in illustration of them, must be transmitted to the Registrar of the College during the last week in May, 1903, in accordance with the Regulations relating thereto, copies of which will be forwarded from the College on application.

The award will be made on some day previous to the 18th October in that year.

EDWARD LIVEING, M.D.,
Registrar.

Pall Mall East, S.W.

[COPYRIGHT].

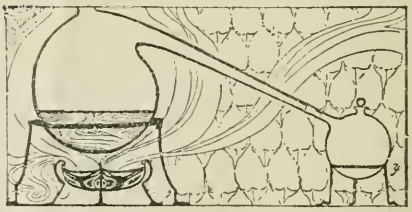
'HAZELINE'

BRAND OF DISTILLED WITCH HAZEL.

Is recognised as the standard preparation of the Witch Hazel. It is prepared from the fresh green bark of the *Hamamelis virginica* by an original process, and retains in full the volatile active principles of the plant. To these points its superiority and its value as an agreeable and active anodyne, astringent and styptic, for internal or external use, are largely due. In small and large bottles, at 1/2 and 3/6 per bottle.

Burroughs Wellcome & Co.

LONDON and SYDNEY.



F 102

THE DUBLIN JOURNAL

OF

MEDICAL SCIENCE.

DECEMBER 1, 1902.

PART I.

ORIGINAL COMMUNICATIONS.

ART. XIX.—*Unreduced Subclavicular Dislocation of the Head of the Humerus.*[a] By EDWARD H. BENNETT, M.D., F.R.C.S.I.; Professor of Surgery in the University of Dublin; Surgeon to Sir Patrick Dun's Hospital, Dublin.

I SUBMIT to the Academy a dissection of a shoulder-joint deformed by old unreduced dislocation of the head of the humerus, and with it a cast of the limb taken before its dissection. Of the life-history of the case I know nothing, and speculations as to the reason for its having escaped reduction are useless. The body was that of an aged female. A view of the specimen and of the cast makes it evident that the dislocation is to be named "subclavicular." The upper extremity of the humerus is seen to be placed directly beneath the clavicle, and to be remote alike from the glenoid cavity of the scapula and the coracoid process. The cast shows also a feature of the deformity of the limb characteristic of the subclavicular dislocation, as contrasted with the intra-coracoid and other forms of antero-internal dislocations.

The limb lies in contact with the side of the thorax; to use the description of Malgaigne, "the arm is generally glued against the trunk." We can, in the cast, see this attitude of

[a] Read before the Section of Pathology in the Royal Academy of Medicine in Ireland, on Friday, November 7th, 1902. [The discussion on this paper will be found at page 460.]

the limb, and the bearing of the tumour formed by the head of the bone. Looking at these relations of the parts chiefly involved in the dislocation, one is forced to the conclusion that when the dislocation occurred the whole, or nearly the whole, of the capsular ligament of the shoulder was ruptured, or stripped from its attachment to the bone around the glenoid portion of the scapula, necessarily most completely on the outer side of the joint.

The specimen shows that the head of the humerus passed into the bottom of the sub-scapular fossa, pushing before it, and to the inside, the sub-scapular muscle, which, with its tendon, is entire. Before the dissection had disclosed these parts, it was only evident that the dislocated head of the humerus could not be felt in the axilla, nor probably through its wall. The long head of the biceps muscle was torn by the dislocated humerus, and is adherent to the bicipital groove. I obtained this specimen in July, 1900, and it lay by me undissected for a time. In the spring and summer of 1899 I met two cases of dislocation in the living, which agree in all particulars with it, so far as one can trace the similarity between the living and the dissected specimen. I should say that before 1881 I had been well experienced in the reduction of shoulder dislocation by the method of the heel in the axilla. I knew that to succeed by that method in difficult cases it was necessary to bring the heel, carried into the armpit, into contact with the displaced head of the humerus, and to use it as a fulcrum on which to lever the dislocated bone into its place. I may now mention that in attempting this movement I could not reach the head of the bone in either of the cases I am recording, nor, indeed, could I pass the heel at all upwards into the armpit. The arm glued to the side absolutely prevented this.

After I had heard Kocher, at the International Congress in 1881, describe his method of manipulation in treatment of shoulder dislocations, I applied it here with invariable success in reducible antero-internal dislocations, until I met the two cases I now submit. I did not, of course, apply it to posterior dislocations, for which it is manifestly unsuitable, of which I met in the time two cases.

The first of the cases I would now record was that of a

powerful man, over six feet in height—a gentleman constantly engaged in active country life. He was mounted on a young horse, going to a meet of hounds, when someone handed him a paper. To read this he let his reins loose on the horse's neck, and as he read the wind fluttered the paper, and the horse made a sudden plunge, throwing his rider heavily on the shoulder. Being near surgical help, he almost at once was placed under treatment by a very able and experienced surgeon, who got to help him three or four of the Royal Irish Constabulary, whose barrack was at hand. The attempt failed, and the patient telegraphed to me to meet him at one of the private hospitals that evening. I found that the dislocated limb presented the feature of an arm glued to the side, and that I could not reach the humeral head in the axilla with my fingers, while the tumour beneath the clavicle was distinct, though masked by powerful muscles. I tried the movements of Kocher's method, and failed. I determined, as the patient had a bad few hours both with his fall, the attempt at reduction tried in force, and his railway journey, that I had better let him rest the night, and be ready in the morning to take an anæsthetic, and I could have with me sufficient assistance. In the morning I found that Kocher's movements again failed, and the failure was repeated when ether was fully given. I then tried the heel in the axilla, but do my best I could not reach the head of the bone, nor could I by traction bring it down to meet my heel. I then changed the method, making traction, against efficient counter-extension, on the arm abducted downwards and outwards, with lacs fast to the wrist and above the elbow-joint; by alternate rotation back and forwards, while I kept up the strain on the limb, I made it move with what is best described as a screwing movement, which ended in a few minutes in a complete reduction

The next case is of the same kind. The patient was a man over six feet in height, who had, in his youth, been a great athlete; he is now past middle life. I approached the case with misgivings. Already five weeks had elapsed since the occurrence of the injury—a heavy fall on the shoulder, and already five attempts had been made at reduction under anæsthesia, and with four or five surgeons present each time,

without any signs of reduction appearing. The features of the injury were the same as I have just now put before you—a tumour under the clavicle well to the inside of the coracoid process, an arm glued to the side, and the axilla closed by the shaft of the humerus, which prevented the hand or the heel from reaching the head of the bone. When I had the patient fully under ether, I tried Kocher's movements, without result, except that probably the head of the humerus was somewhat freed from adhesions. I tried the heel in the axilla, as in the last case, and because I had been so familiar with the method. I could not enter the axilla at all with my heel. I then tried the extension on the arm extended downwards and backwards. I found on making the screwing movements, as before, that the head of the bone came down, and was slowly reduced into the joint. I confess that the result astonished me. I believe that the head of the humerus could not get inwards to the distance at which it lies in the specimen without a great rupture of the capsule, first on the inside of the joint, through which the bone escapes and passes beneath the sub-scapularis, and again by the tearing away of the outside of the structure to permit the bone to take its new position. We see in this dislocation that the bone passes right away from the glenoid process of the scapula. In the other antero-internal dislocations the humerus rests by its groove between the head and great tuberosity on the glenoid border. The varieties of these lesions depend on the height or lowness of the contact between the bones in this groove and on the degree of rotation enforced on the shaft of the bone by the extent of untorn capsular ligament.

Looking at a model in which the parts of the ligaments are taken by elastic cord and membrane, we can see the reason why Kocher's proceeding fails, there being no structure left to act in maintaining the tension between the glenoid border and the humeral groove. Farabeuf's experiments demonstrate this point also, for if the external parts of the capsule be divided, the leverage necessary to the production of Kocher's reduction fails.

ART. XX.—*The Prophylactic Treatment of Enteric Fever by Inoculation.* By WALTER C. STEVENSON, M.D., B.Ch., B.A.O., D.P.H., B.A. Univ. Dubl.; Lieutenant, Royal Army Medical Corps, Royal Infirmary, Phœnix Park, Dublin.

THE subject of the prophylactic treatment of enteric fever by the inoculation of a vaccine consisting of dead typhoid bacilli and their toxins was first treated in the *British Medical Journal*, January 30th, 1897, in an article by Prof. Wright, of Netley, and Surgeon-Major Semple, A.M.S.

From time to time articles from the pen of Prof. Wright and others have since appeared on the method and its development. A short *résumé* of the *rationale* of the method will be of interest to those who have not been able to follow the steps by which Prof. Wright gradually advanced our knowledge of the mode of treatment proposed by him.

It is observed that when the human subject has been prostrated about a week with enteric fever certain conditions exist:—1. His spleen is enlarged. 2. The characteristic typhoid spots are present on the patient's abdomen. 3. When his blood is tested for Widal's reaction it is found to clump typhoid bacteria.

The bacteriological course of events seems to be somewhat as follows:—

The typhoid bacillus is swallowed in milk or in water, or in some manner finds its way into the intestines. By attacking Peyer's patches, and setting up inflammation there, and finally by the lymph stream, the bacilli enter the blood in considerable numbers. Now they find themselves in a very unsuitable medium in which to thrive, as the blood normally possesses a strong bactericidal and agglutinating power for this particular organism. In the blood stream the toxins are washed off the bacteria, and their feeble condition is testified by the loss in their staining power.

Human blood serum is capable of agglutinating and killing a certain number of typhoid bacilli, which fact can easily be shown experimentally. If the serum, having destroyed its full complement of bacilli, is strained away from them, it will be found incapable of harming any further quantity of

enteric germs. It is, in fact, as if a definite chemical compound is formed by the protoplasm of the bacterium and the bactericidal and agglutinating substances in the blood.

There is a distinction between the agglutinating and bactericidal properties of the blood, as was demonstrated by the "Berne Serum," which had been put on the market for the treatment of enteric. It was found that when this was added experimentally to the blood, although it increased agglutination, yet it destroyed the bactericidal power of the blood—not a very desirable result.

Using Ehrlich's conception of protoplasm, and, by way of simile, mentally representing it as a benzene ($C_6 H_6$) group, or molecule, we perceive that the bactericidal substance of the blood attacks the vital ring of the protoplasm of a bacterium (C_6 in $C_6 H_6$), tearing it asunder and destroying its existence as a definite compound and radicle, while the agglutinating substance combines with the less vital side-chains of the group (H_6 in $C_6 H_6$). The side-chains in protoplasm function by uniting with food stuffs.

Bactericidal substances kill the bacteria, while the agglutinins act principally on their capsules, causing agglutination, immobilisation, spherulation, and sedimentation of the bacilli.

Finally, agglutination is measured by the Widal reaction, or Prof. Wright's sedementation test[a]; while Prof. Wright estimates the bactericidal power[b] by finding what relative volume of blood will render sterile a volume of 24-hours' old broth culture of typhoid bacilli. The result is given as the number of typhoid bacilli one cubic millimetre of blood will kill.

In the *Lancet*, July 5th, 1902, a particularly quick and easy method of counting bacteria is described by Prof. Wright. It consists of making a film cover-glass preparation of a mixture of, for instance, one volume of a 24-hours' typhoid broth culture, and an equal volume of a five-fold dilution of blood. The number of red blood corpuscles and of bacteria are counted separately in one or more fields. If the number of red corpuscles present represent red blood corpuscles at

[a] British Medical Journal, Jan. 16th, 1897.

[b] Lancet, Dec 1st, 1900; March 2nd, June 1st, 1901.

the rate of one-fifth of 5,000,000 per cubic millimetre (5,000,000 being the number normally in one cubic millimetre of blood), the number of bacteria per cubic millimetre can easily be estimated.

For convenience, agglutination and the bactericidal power of the blood may be classed as its "bacteriotropic" properties.

Typhoid bacilli having therefore gained entrance into the blood by some means, they are carried round in the circulation till a number of them are finally caught alive in the meshwork of the spleen. But, as already stated, the bacilli cannot live in the unchanged fluids which bathe this organ; and it must be that only those bacteria which happen to be situated in limited areas in the spleen where bacteriotropic substances are diminished, or not present, that can thrive and form colonies.

Two factors probably combine in forming these localities. Firstly, the blood and lymph stream is slowed down, and then partially or completely shut off from the area of the colony, which area must of necessity be very small. Secondly, the bacteriotropic substances combining chemically with the outlying bacteria, the injurious properties of the blood or lymph are diminished for those lying in the distal part of the colony, where growth is most vigorous. The spleen is consequently enlarged and congested, due to the irritation of the microscopic miliary colonies scattered through it.

The fact that the bactericidal power of the blood permeating these colonies is diminished is capable of demonstration. If a piece of spleen is taken which must contain several colonies, or, better, the blood from a typhoid spot which is a single colony, and this is compared with the blood from the finger, it is found that the latter blood still kills typhoid germs, while in the former typhoid bacilli are comparatively uninjured.

The bacilli having once started to grow in the spleen they commence to send their toxins into the blood current. The first effect is that the toxins combine with the bacteriotropic substances normally in the blood, and before the tissues have time to react sufficiently the bactericidal power of the blood is lowered—that is, a "negative phase" of immunity is induced in the body. It is now probable that some bacilli find an

opportunity of disseminating through the system with comparative impunity, and subsequently they grow to colonies, as the miliary colonies found in the small intestine and the typhoid rash. Possibly, the reason why the colonies are seen on the abdomen particularly is on account of the thinness of the skin there, and the good superficial blood supply of this region owing to its protected position.

Soon, however, the stimulation of the toxins in the blood acting on the tissues causes an outpouring of antitoxins, or antibacterial substances, and thus the bactericidal and agglutinating properties of the blood increase considerably above normal—that is, a "positive phase" of bacteriotropic power is reached. This explains the Widal reaction in the blood serum of an enteric patient when the disease is well established, causing the clumping and death of typhoid bacilli, even with high dilutions of the serum.

A struggle ensues now between the toxins and bacteria on the one hand, and the bacteriotropic substances formed by the body on the other. If the agglutinating and bactericidal power continue high in the blood, prognosis is favourable; while if they fall and remain very low, prognosis is grave. If there are no complications convalescence results when the body cells have produced sufficient bacteriotropic substances to neutralise the toxins produced and to kill the bacteria. In most favourable cases the system responds well to the toxic stimulation, and the patient commences life again with his bactericidal and agglutinating powers increased—that is, his body presents a highly unfavourable medium for enteric germs to develop in. If, on the other hand, as sometimes happens, the response of the body has only just been sufficient to kill the typhoid bacilli, there may be little or no bacteriotropic elements left in the system, and the patient will be less able to resist enteric than previous to his illness. Several patients who had been invalided home from S. Africa after enteric have gone out again and succumbed to that disease.

Now, if with safety and facility an individual can be placed in the condition of one who has convalesced from an attack of typhoid fever with his powers of resisting it greatly increased, the object of introducing a prophylactic treatment of enteric will have been achieved. This immunity is brought

about during the course of the disease, as we have seen by the stimulation of the toxins of the typhoid bacilli, causing the production of a condition antagonistic to the germs of that disease. It is easy to obtain for the purpose of this treatment typhoid toxins, seeing that a broth culture must abound in them. All that is necessary, therefore, is a broth culture which has been sterilised by heating up to 60° C., which kills the typhoid bacilli, but does not affect its toxins. A certain quantity of carbolic acid is then added to the broth, and its sterility is tested by the absence of growth when nutrient media are inoculated with it. The culture is standardised and sent out in capsules for single administrations, or bottles with several doses. Usually the dose is 1 cc. for the first injection, and 1½ to 2 cc. for the second. The method of administration is by a sterile hypodermic needle, the fluid being injected into any part of the body, preferably where the tissues are lax, as in front of the axilla or in the skin of the abdomen.

At first, in this treatment, one large dose of typhoid vaccine was used. It was then found that the bactericidal power was decreased for a considerable time, as long as a fortnight or three weeks—that is, the "negative phase" of immunity was prolonged. This was gradually followed by the "positive phase" with increased bactericidal power. This prolonged negative phase is not a desirable circumstance, as during that period the individual is somewhat in the condition of the patient who recovers from enteric fever with his power of resisting a subsequent attack impaired. This result was obviated by giving an initial small dose when there is a very short or no "negative phase;" for if the blood be tested the day following inoculation the bactericidal power will have been already raised. When after ten days a larger dose is administered, a still greater bactericidal power will be gained, usually a short "negative phase" intervening.

The symptoms produced by this treatment are trivial. Of 70 cases of inoculation carried out by the present writer on board ship only one patient took to bed, for one day and a half. His evening temperature was 101° F., and was 99° the following morning. In another case it caused vomiting about three hours after inoculation. The symptoms were

mostly local. Two hours after the injection the muscles in the region of the wound were stiff, and painful on movement. This sensation was at its worst the following morning, and subsided slightly during the day. On the fourth morning most of the stiffness had disappeared. On the second inoculation local symptoms were little marked, but a feeling of malaise was experienced for a couple of days.

The immunity brought about by typhoid vaccine seems to be similar but more certain than that produced by long residence in a locality where enteric fever is endemic. Fresh arrivals in such a place are more likely to contract the disease than those who have been exposed for some time. Some of Prof. Wright's assistants, though they have never been inoculated by him, have an abnormally high degree of immunity against enteric, due to their constant work in the laboratory.

Inoculation does not absolutely prevent the disease, but statistics show that the percentage of cases among those who have been so treated is very considerably less than among those who have not, though all were equally exposed.

In conclusion, it is reasonable to expect, and ascertained facts as far as they go prove, that this system of treatment is a satisfactory one for the prophylaxis of enteric fever. But, as pointed out above, discretion is necessary in practising it in the presence of an epidemic where an overdose of vaccine would for a short period lower the power of resisting this disease.

ART. XXI.—*Errors in Diagnosis, Avoidable and Unavoidable.*[a] By ALFRED PENNY, L.R.C.P.I., L.R.C.S.I.

I HAVE no new treatments or remarkable or interesting cases to bring before your notice. On the contrary, I fear you will find this paper dull and uninteresting. It is a record of failures; of things done which ought not to have been done, and of things undone which ought to have been done. About twenty-two years ago the late Mr. Ernest Hart, the then editor of the *British Medical Journal*, made an entirely new departure in his management of that

[a] An Address read before the Chelsea Clinical Society, 1902.

influential paper. He opened a column in the Journal under the title of "The Confessional," and invited the members of the Association to confess their sins of diagnosis, prognosis, and treatment. He further assured intending contributors that his attitude towards them would be that of a medical priest. He promised not to publish their names and strictly and honourably to respect their confidences. Here was an opportunity for many an over-burdened conscience. The response Mr. Hart assumed would be immediate and overwhelming. But what was the real result? Five sinners, and five only, confessed their faults after the door of the Confessional was opened to the medical public. One of these five—a personal friend of my own—had a sad and instructive tale to pour into the sympathetic ear of the Editor-Confessor. Remember that my friend was very young and very inexperienced when one day he found himself resident medical officer of a large provincial hospital, with full charge over the various special departments at which out-patients attended suffering from throat, ear, eye, and other maladies. One of the first patients who presented herself at the gynæcological department was a young woman, whose symptoms I need not go into. He, however, did most thoroughly, and armed with a Fergusson's speculum, and after much labour and vain searchings, at length brought the cervix uteri into full view. Of this feat he was rather proud, having never before had an opportunity of trying to do so. In fact, except in a book, and an occasional hurried glimpse whilst attending his clinical classes, he had never before even seen this interesting structure. But although his previous practical acquaintance, from the medical standpoint, with the cervix uteri had been remarkably limited, he was thoroughly acquainted with its pathological aspects in theory, having read the standard text-books on the subject. And from the knowledge he had thus acquired he came to the conclusion that the condition revealed by the speculum's aid indicated the presence of an ulcer on the cervical margin. The diagnosis thus made, the only remaining thing to be done was the treatment. And here, once more relying upon his book knowledge, he promptly applied nitrate of silver to the affected part, and

having so done, he withdrew the speculum and told his patient to come back in a week's time. She did not return. He could not understand it. At length, after three weeks' absence, she appeared once more in the out-patients' department. My friend was very angry, but, subduing his wrath, asked her how she was. "Oh, quite well now, doctor, and thank you for all your kindness in doing so much for me. I hadn't been more than five minutes in the house when the miscarriage came on."

My friend has since retired from practice, a successful man. That case, illustrating as it does some of the many important points to be found in actual practice, but not to be found in books, taught him much.

Avoidable errors in diagnosis may arise from :—

1. A positive lack of knowledge on the part of the practitioner of the particular complaint the patient is suffering from.

2. A hasty and inefficient examination of the patient when a more prolonged and careful examination would reveal the true state of affairs.

3. Directing too much attention to symptoms, and too little attention to physical signs, and *vice versâ*.

4. Neglecting to use the different instruments of precision—*e.g.*, the laryngoscope, the stethoscope, and the thermometer, or employing them with insufficient knowledge and experience.

5. Failing to come to the point—*i.e.*, drawing a wrong conclusion from correct premisses.

6. Diagnosticating the disease, but not the patient.

I firmly believe that the majority of avoidable errors in diagnosis are due to hurried and incomplete examinations of patients. A man is very apt, especially if he is in busy practice, to dismiss a patient with a prescription after making a few inquiries. Perhaps he has five or six patients in his waiting room; has indulged in an extra half-hour's sleep that morning; has a long list of visits that day, and is in a hurry to get out. So the usual routine is followed of looking at the tongue, feeling the pulse, and inquiring as to the state of the bowels.

This is a thing that rapidly grows, and if not checked

develops into a habit, and then one gets into a rut. The gentle rub-dub of the heart sounds and the respiratory breezes are no longer heard, or if heard are no longer appreciated. The only specimen of the urine one ever inspects is one's own. The abdomen is an unexplored region, and the larynx and the fundus oculi are far in the depths of a Darkest Africa, into which no medical Burton, Stanley, or Johnston is inclined to penetrate. Then comes the arm-chair, the cosy fireside, and the motto "Cui Bono."

Some years ago a patient came to me complaining of symptoms which pointed to flatulent dyspepsia as the proximate cause of her trouble. I had really no doubt about the nature of the case, and treated it accordingly. She did not improve under treatment. One day I asked her to allow me thoroughly to overhaul her. On examining her abdomen I found that her spleen extended almost as far as the crest of the ilium, and the cervical axillary and mesenteric glands were enlarged. In addition, she had advanced aortic disease, and she died about a year later from leucocythæmia.

It is easy to make a mistake of this sort, but it is quite a different matter when your patient seeks other advice and finds that your diagnosis was wrong. You then get the credit of being an "ignoramus," and not only lose that particular patient, but perhaps many more, who, in course of time, will be certain to hear about your incompetency. Believe me, the public are not so foolish about medical matters as we usually credit them with being. Good work tells in the long run, and good work means constant study and the acquisition of that living knowledge such as one gets at a post-graduate Hospital under the supervision of men who are the exponents of all that is best and most advanced in their own special lines.

When a man is settled in practice he gets out of his difficulties by one of two methods. He seeks in his books for fresh information, or he sends for a consultant to solve the riddle for him. Books are all very well in their way, but book knowledge is not living knowledge. A man may lose a few patients occasionally if he attends a post-graduate Hospital, but the enlarged experience and the wider grasp of

his work he gets there more than compensate for these, and his patients think all the better of him because he tries to keep abreast of the times.

I believe we are indebted to Mr. Mark Twain for the saying, "When in doubt tell the truth." Now it is sometimes a painful process to tell the truth, especially when the truth means an avowal of one's ignorance. If you thoroughly examine a patient, using all your different instruments of precision—the laryngoscope, the stethoscope, nasal and aural specula, and other aids to diagnosis, in nine cases out of ten you will eliminate any element of doubt, and in many cases detect conditions that have never been suspected.

I will give an illustration of what I mean. A patient comes to you complaining of a troublesome cough. You examine his lungs, larynx, throat and nose, and find nothing abnormal. You prescribe different sedatives, all to no purpose. You confer with a consultant. He reads your notes, opens a drawer, takes out an aural speculum, examines both ears, syringes, out comes a plug of wax, the cough disappears, and the patient departs very much impressed by the consultant's skill and by your ignorance. You go home, and if you are a wise man you purchase a set of aural specula, if you have not already got them, and keep them in your waistcoat pocket, or under your pillow, if need be, as a constant reminder of your forgetfulness.

I think it is a good plan in every case to feel both radial pulses instead of confining your attention to one only. I am now firmly convinced of the importance of doing this. Two years ago I was not, and as a result I failed to detect an aortic aneurysm in a patient. He very kindly permitted me to treat him for a complaint he had not got until pressure-symptoms supervened and opened my eyes to the true state of affairs, and then I found that there was no pulsation in his right radial artery.

All successful diagnosticians possess what may be called the synthetical as well as the analytical faculty. The possession of this faculty—what is commonly called the capacity of "coming to the point," is a most valuable one, and no amount of training will bring it out if a man has

not got it in him. Many men are born without it. I have seen many general practitioners, and not a few consulting physicians as well, wandering about in quagmires of symptoms and physical signs, their case books crammed with copious notes, taken with infinite pains at the expenditure of much time, ink, and paper, who despite all this could not put two and two together and recognise an elephantine fact staring them in the face.

Some years ago a gentleman with whom I was acquainted fell off his bicycle. He was run over by a car following in his wake, and sustained very serious internal injuries, as the cartwheel passed over his chest. For some time his life was despaired of, but he ultimately recovered. About a year after the accident he complained of severe pain in the chest of a gnawing character. This pain was diagnosticated by an eminent surgeon, who was attending him, to be due to muscular rheumatism, and this opinion was confirmed by another equally eminent surgeon. I naturally took a great interest in the case, and when I heard about the new development I put the cartwheel and the pain in the same basket, and timidly suggested to a mutual friend that very possibly this was a case of thoracic aneurysm of traumatic origin. It proved unfortunately to be so, and from this cause my friend died some seven months later. The abdominal cavity is the region of surprises and surmises. It is like a sealed envelope. You can never tell what is in it until you have opened it—*i.e.*, what pathological condition you may find. Even what are supposed to be the most plain-sailing cases turn out to be quite at variance with the facts sometimes. With this ever-present element of uncertainty, therefore, it is not surprising that the abdomen should present difficulties, from a clinical point of view, and thus justify one in saying that diagnostic errors in abdominal cases may be placed under the heading of Unavoidable Errors in Diagnosis. Take the case of that very get-at-able organ, the uterus, and consider the many instances within one's own personal knowledge where pregnancy has been overlooked, or where some other condition has been mistaken for it. It is most important to bear in mind the possibility of pregnancy in all kinds of obscure

abdominal swellings in women, more especially when an abdominal section is contemplated; otherwise serious consequences may ensue. I can distinctly recall to mind a case of this sort, not many years ago, where a surgeon, and a very distinguished one, too, nearly ruined his reputation by forcing a Spencer Wells' trochar through the head of a child *in utero*. How frequently, too, is a uterine polypus mistaken for pregnancy.

Early this year I was consulted by a gentleman suffering from hæmaturia, but he had no other symptoms or previous history to guide me in forming a diagnosis. Much against my wish I kept him under treatment for several months, but with little or no improvement. I was quite at sea as to the seat of the hæmorrhage, which was certainly not urethral. I showed my notes to a well-known specialist. After having read them he said, "The mischief, whatever it is, is not in the kidney. In all probability it is a villous growth in the bladder." It was not. On using the cystoscope he said he saw blood spurting from the right ureter. He concluded, therefore, that he had to deal with a right renal calculus. The patient consented to an operation. Before operating, however, he was cystoscoped again with a better light, and the blood was seen coming from the left ureter. The surgeon cut down upon the left kidney and explored it. The kidney was healthy but displaced, and there was a slight twist in the ureter. The displacement was rectified, and the wound closed. The patient had profuse hæmaturia for three or four days afterwards, but the urine gradually cleared, and an excellent recovery was made. He was very much puzzled to find after the operation that his left and not his right kidney had been operated on. His relations assured me that a serious mistake had been made, as we had told them at the time that the trouble was in the right kidney and not in the left.

Two physicians who lived and practised in the early part of the eighteenth century had a slight difference of opinion at the bedside of a patient as to the particular organ at fault. The patient took a deep personal interest in the matter. Dr. A. stated that in his opinion the liver was the

Fons et origo mali. Dr. B. staked his reputation on the heart. Dr. A. retorted, "Well, sir, wait until the *post-mortem;* wait until the *post-mortem.*"

We seldom wait for the *post-mortem* now-a-days. We anticipate it. If a patient must die, and if he has the will and the means to place at his own disposal all the skill and all the help that modern medicine and surgery can afford him, he and his friends can at least have the satisfaction of knowing that although the disease triumphed its real nature was recognised before death closed the scene.

ART. XXII.—*Mouth-Washes and the Integrity of the Teeth.* By W. H. TRICK, L.D.S. Eng.

SCIENTIFIC dentists long since set their faces against the tendency on the part of the public to attach an exaggerated importance to tooth powders and tooth pastes as means of cleansing the teeth. It is obvious that these applications exert their detergent effects only on the visible, external surfaces of the teeth, leaving untouched, or at any rate untreated, any carious areas that may be present. The objections urged against these preparations, moreover, are not based solely upon their inutility. Many specimens of tooth powders on the market contain crystalline fragments of hard, resisting nature, which, in the long run, wear away the enamel to a greater or less extent. In consequence of this great drawback, tooth powders have of late been abandoned in favour of liquid dentifrices, using the tooth brush as the mechanical means of cleansing.

This question is by no means trivial, for upon the employment of effectual and innocent dentifrices depends in great measure the dental future of the individual. The necessity for the routine use of a really antiseptic mouth-wash has been established in an irrefragable manner by Miller and others, and in proportion to the general acceptance of the view that dental caries is not a simple chemical process, antiseptic dentistry has tended to prevail. When the presence of micro-organisms in decaying teeth was first demonstrated, their presence was regarded as secondary to the initial caries—

that is to say, their *rôle* was thought to be that of scavengers engaged in devouring decomposing animal matter. It is hardly necessary at present to point out that caries results from the microbial action, the acid products elaborated by these organisms attacking the teeth and exposing the dentine to their disintegrating action. The tooth is deprived of part of its lime constituents by this microbial action, and is thereby structurally weakened.

Although the chemical destruction of teeth in caries is practically identical with that caused by acids, it is a common thing to meet with dentifrices which have a distinctly acid reaction. Among a large number with which I have made myself acquainted I have met with weak solutions of corrosive sublimate, cream of tartar, salicylic acid, in aqueous and alcoholic solution, alum, boric acid, thymol and carbolic acid. These were tested in the usual way by placing teeth in their solutions, at an ordinary temperature, for several days, and then testing for phosphoric acid and lime. The diluted solutions of sublimate gave the weakest reaction, this salt undergoing decomposition with the liberation of free acid only with difficulty. Nevertheless the reaction in Miller's hands was invariably positive. Alum, as might be expected, gave well-marked reactions, since it breaks up readily enough into free acid and basic sulphate. Even carbolic acid was shown to possess the power of dissolving lime salts out of healthy dentine, even in the weak solutions in which this drug is employed for tooth-cleansing purposes. Daily experience indeed has taught the general public that the methodical use of strongly acid articles of diet, or the continouus use of acid medicines, exert a deleterious action on the teeth. It follows that a mouth-wash intended for constant use must, first of all, be free from acid.

The epoch-making researches of Miller and Röse, devoted to the investigation of questions connected with the presence of micro-organisms in the mouth, have absolutely demonstrated the necessity of an antiseptic mouth-wash. But the question as to what particular kind of antiseptic should be preferred for habitual use as a mouth-wash is naturally one which has attracted a good deal of attention, manifested in the form of countless varieties of mouth-washes. Obviously

our chief aim must be to secure a strong antiseptic effect, but in seeking to fulfil this indication the maxim *primo non nocere* is often lost sight of.

Let us ask ourselves then what must be regarded as the essential qualities of a perfect mouth-wash. First of all, let me state what it should *not* do. In the first instance, it should *not* be injurious to any of the structures with which it comes into contact. It should *not* attack the teeth, it must *not* set up irritation of the mucous-membranes of the buccal cavity, and, moreover, it must not be of a nature calculated to hinder digestion or to deteriorate the general health. It must possess deodorising properties without leaving any objectionable flavour or aroma of its own; and lastly, it must be capable of arresting the fermentative processes and microbial decompositions which underlie all carious processes.

It follows that an ideal mouth-wash must be non-poisonous and unirritating; it must be neutral in reaction—that is to say, neither acid nor alkaline, the alkalies attacking the organic constituents of the teeth, and the acids disintegrating the mineral constituents. Lastly, it must be deodorising, refreshing, and antiseptic. All mouth-washes which do not comply with these indications must be described as objectionable. The principal indication, however, is certainly the presence of a trustworthy antiseptic constituent otherwise unobjectionable.

Subjected to these tests it is surprising how few, if indeed any (with one exception), of the mouth-washes and dentifrices in general use would justify our approbation. Indeed I know of only one which, in every respect, conforms to the schedule of requirements which I have sketched, the validity of which no dentist, I imagine, would challenge. That exception is a preparation called "Odol," which, as shown by carefully conducted tests, is non-poisonous, indifferent or neutral, and absolutely unirritating. It exerts a marked antiseptic action, and possesses a refreshing taste and aroma. It would be invidious to institute comparisons with other well-known mouth-washes individually. Comparisons are odious, but it will suffice for me to say that odol alone, among the numerous dentifrices with which I am familiar—and the list comprises all the well-known preparations in the market—possesses to

the full the negative and positive virtues which we are entitled to require in a toilet preparation of this class.

It is a mistake to suppose that it is necessary absolutely to destroy all the micro-organisms which are found in the mouth. This object can be attained only by the use of such bactericidal substances as corrosive sublimate, which, for reasons already set forth, is ineligible. Our object rather must be to arrest fermentation and decomposition, which are the causes of disorders of the teeth and of foul-smelling breath. Now, fermentation and decomposition in the mouth will be arrested if the germs in the mouth are merely prevented from developing and multiplying. This result, which cannot be obtained by the use of mild antiseptics, cannot safely be obtained by the employment of strong antiseptics, which, as already shown, are always injurious to the teeth. Consequently the best mouth-wash is not necessarily the one which contains the strongest antiseptic—that is to say, an agent which produces the most marked effect in the shortest space of time. The test is rather one of endurance—that is to say, the period of time for which a given mouth-wash inhibits fermentation after use.

The very elaborate experiments carried out by Miller showed conclusively that by rinsing the mouth with mild and harmless odol the processes of decomposition and fermentation in the buccal cavity are checked for a longer time than by the use of poisonous and injurious agents such as corrosive sublimate. The explanation of this apparent paradox is that the one antiseptic, odol, is partially retained, while the other is not. The latter consequently exercises its influence only for about half a minute, while odol exercises its influence for a long time, being absorbed by the mucous membrane of the mouth. It may be regarded as an established fact that the effectiveness of an antiseptic depends more upon the length of time during which it exerts its effects than upon its immediate power to destroy bacteria.

Odol, as has been pointed out, is non-poisonous, indifferent, and neutral. It does not attack the teeth, yet has strong deodorising properties and a refreshing taste. Odol, I find, is apparently an alcoholic solution perfumed with oil of peppermint and sweetened with saccharine, of an antiseptic which

has no injurious effects upon the mucous membrane of the mouth or the teeth. On the other hand, it develops a strong antiseptic power which inhibits lactic acid fermentation and greatly hinders yeast fermentation. It further does good service by sterilising fragments of food remaining in the mouth. The secret of the superiority of odol lies in the fact that its antiseptic constituent is partially retained by the mucous membrane of the mouth, while other antiseptics are not.

Odol possesses yet another advantage—viz., that it does not stain the teeth as do many otherwise active dentifrices, especially when the dentine is exposed to their action.

Incidentally, the elegant and convenient shape of the flask in which odol is contained is a detail worthy of note, a detail which cannot fail to commend the use of odol to the general public, although it may not win over the medical critic who tests the preparation, and recommends it on the sole ground "that it is the one and only preparation at present known which is absolutely harmless, and is well suited for the prophylactic preservation of the mouth and teeth."

Odol is remarkably efficacious in removing bad odours and tastes from the mouth, and it is in every respect vastly preferable to any other mouth-wash at present before the public.

EGYPTIAN MEDICAL CONGRESS.

The following gentlemen have kindly consented to join the Committee in England on behalf of the Egyptian Medical Congress, which will be held at Cairo on Dec. 19th–23rd next. Special facilities and reduction in fares are arranged for members wishing to be present at the Congress. Anyone wishing for further information will please apply to any member of the Committee, or to the Hon. Secretary, 9 Manchester-square, London. List of the Committee :—Sir Lauder Brunton, Mr. Watson Cheyne, Sir William Church, Bart., Mr. Reginald Harrison, Sir Victor Horsley, Dr. Stephen Mackenzie, Dr. Page May (Hon. Sec.), Sir Douglas Powell, Bart., Dr. George Savage, Sir Thomas Smith, Bart., Dr. James Taylor, and Sir Frederick Treves, Bart.

PART II.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

The Report of the Yellow Fever Expedition to Parà of the Liverpool School of Tropical Medicine and Medical Parasitology. By H. E. Durham. London: Longmans, Green & Co. 1902. 4to. Pp. 79.

This valuable report has been already briefly noticed in our review of the Thompson-Yates Laboratories Report, Vol. IV., Part II., from which it is now separately printed as the seventh Memoir of the Liverpool School of Tropical Medicine. As previously stated, it has a melancholy interest from the fact that both members of the expedition were almost simultaneously attacked by yellow fever, and one of them—Dr. Walter Meyers—died of the disease. The interruption caused by this has interfered in many ways with the completeness of the report, which, however, contains a great deal of interesting and useful matter.

After a brief preface, in which the author acknowledges his obligations to several gentlemen from whom he received assistance in his work, there is a section headed "Preliminary thoughts on the problem of the Etiology of Yellow Fever." In this a sort of programme is laid down of the possibilities of the causation of the disease and the methods of investigation which should be adopted. Then follow the reports. First, the preliminary report, which was published in the *British Medical Journal*, then an abstract of the interim report, the completion of which was prevented by the illness of the author and his colleague.

A fine small bacillus was found in the organs of all the cases (14) examined. It somewhat resembles the influenza bacillus, and in the tissues is about 4 μ in length. It is also present in the large intestine. No other bacillus was found in the organs. It is difficult to stain and to cultivate. This accounts for its importance having been overlooked, although it has probably been seen by three previous ob-

servers. A protozoal parasite could not be found. Doubt is thrown on the man-to-man transference of yellow fever by means of a gnat, as maintained recently by the American Commission.

An examination of the claims of Sanarelli's bacillus, *B. icterodes*, to be the germ of yellow fever leads to the exclusion of this parasite from the ætiology of the disease. As to the recent observations of the agency of mosquitos it is now held that "it may be taken as proved that *Stegomyia fasciata* (Culex) may be capable of transferring the disease some ten, twelve, or more days after having fed upon yellow fever patients during the first, second, or third day of the fever."

From the author's own observations he formulates the following "working hypothesis of the pathology of yellow fever:"—"Supposing the small bacilli found in the typical bites, organs, salivary sacs, and stomachs of the mosquitos and in the intestinal contents were identical in nature, and that they were the acting cause of yellow fever, the following working theory of the fever could be formulated:—At first the subcutaneous introduction of the bacilli by the gnats (which might have derived them from patients or by feeding on other, *e.g.*, fæcal, material); affection of the superficial lymphatic glands (in which case the infection would seem to take place more frequently in the upper than in the lower extremity, as judged by the intensity of the lesions in the glands of the former); generalisation through the system, giving rise to the influenza-like first period of the fever; localisation of the bacilli in and about the intestinal area, resulting in absorption and distribution of toxic products causing the symptoms of the second period of the fever."

The treatment is chiefly hygienic, together with protection from gnats, both to prevent re-infection of the patient and the spread of the disease to others. No prophylactic inoculation has as yet been discovered.

In a separate chapter we find notes on roseolar marks described as "typical bites;" on the conditions of the lymphatic glands, which, particularly in the axilla, are almost always enlarged and congested; on the urine, which con-

tains a soluble form of proteid and tube casts, whose retention in the renal tubes probably plays a large part in the frequently recurring suppression of urine; on the kidneys and other organs in which it is shown that the yellow colour of the blood plasma is not due to the presence of dissolved hæmoglobin.

Notes of cases, including that of the author himself, follow. A chapter is devoted to ague at Parà, and the habits of *S. fasciata*, a day gnat, and *C. fatigans*, a purely night insect.

A long chapter deals with the general health of Parà, and the hygiene of the place, both of which are much in need of improvement.

In the last chapter are "odd notes"—on the parasitic nature of prickly heat, to which we referred in our former notice; on Drepanidium in the toad; and on Trypanosona in the bat, and on blood parasites in some other animals.

A Manual of Bacteriology, Clinical and Applied, with Appendix on Bacterial Remedies, &c. By RICHARD T. HEWLETT, M.D., &c.; Professor of General Pathology and Bacteriology, King's College, London, &c. Second Edition. J. & A. Churchill. 1902.

THIS manual was first published and reviewed by us in 1898. With sincere pleasure we now notice the appearance of its second edition, which has been carefully kept abreast of recent progress, as well as otherwise enlarged and improved. As is needed in the case of a young, vigorous, and progressive branch of science, many sections have been re-written, others re-arranged and enlarged, and such naturally concern subjects upon which literature has accumulated during the period which has elapsed since the appearance of the first edition.

The chapter on "Anti-sera, Anti-toxins and Immunity" shows in an especial degree how keenly this branch of science is being pursued, and how correspondingly interesting and important are its fruits. This chapter contains a compact and intelligible summary of Ehrlich's now famous "side-chain" theory of immunity; and a notice, under the heading of "Precipitins" of Uhlenhuth's method of distinguishing the

bloods of different species of animals. Evidence is accumulating which serves to indicate that this latter will fill a gap until now seriously felt in medico-legal science.

Another section—that dealing with the relations of protozoa to disease—has been very considerably enlarged. We find here, besides descriptions of the tsetse disease of horses, &c., a particularly good and well illustrated account of malarial parasites.

The difficult and still vexed questions of the separation and differentiation of the three groups—typhoid, Gärtner, and colon—of specially intestinal organisms are well dealt with, though upon this subject each day brings with it somewhat new.

Having thus merely indicated a few noteworthy points in this manual, we may say that from the student's standpoint it is an altogether admirable introduction to bacteriology, very successfully blending the characteristics of text-book and laboratory companion. Having constantly used it for four years in the latter capacity, we can speak confidently as to its value. It contains many practical wrinkles found only in the work of one who has acquired his experience at first hand. Within its avowed limits it is, we think, the best as well as the most recent of not a few good text-books upon bacteriology.

Clinical Essays and Lectures. By HOWARD MARSH, F.R.C.S.; Surgeon to, and late Lecturer on Surgery at, St. Bartholomew's Hospital; Consulting Surgeon to the Hospital for Sick Children; President of the Clinical Society of London; Hon. Member of the Medical Society, State of New York. London: J. & A. Churchill. 1902. Pp. 303.

MANY of these essays and lectures have appeared from time to time in the St. Bartholomew's Hospital Reports or Journal, the weekly Medical Journal, and the "Transactions" of the Clinical Society of London. The work is in no sense intended as a handbook. The object of the author is not that of simply giving signs, symptoms and pathology such as are to be found in every handbook. It is rather that of setting forth some of the practical points of information he acquired from his large experience as a hospital surgeon in connection with

the diagnosis of various conditions, their prognosis, and in some cases their treatment. In this he has not hesitated to detail mistakes as well as successes in diagnosis—a matter of the utmost importance for the observant student; aye, and even one not gifted with an abundance of observation will learn more in many cases by a surgeon's mistakes, if these are clearly pointed out, than he will by the same surgeon's successes, no matter how brilliant.

The various essays and lectures are eminently practical and full of interest, while the illustrations are numerous. The volume is one well worthy of careful perusal.

A Handbook of Surface Anatomy and Landmarks. By Bertram C. A. Windle, F.R.S., Sc.D., M.D., M.A. (Dublin); Professor of Anatomy in the University of Birmingham. Third Edition. London: H. K. Lewis. 1902. Pp. xvi + 141. Post 8vo.

The issue of a third edition of Professor Windle's little handbook at a comparatively early date is the best testimony which can well be adduced of the fact that its publication has filled a distinct want in anatomical literature. The bulk of the present issue, of course, remains identical with that of its predecessor. The name of Dr. T. Manners Smith has been omitted from the title-page, while the author acknowledges in his preface the valuable help he received from his present assistant, Dr. W. Wright, F.R.C.S., in the preparation of this third edition. We do not think further special criticism necessary for a text-book which has established its position. We feel sure that its contents are thoroughly appreciated by the anatomical students of the Birmingham University.

Aids to Dental Anatomy and Physiology. By Arthur S. Underwood, M.R.C.S., L.D.S. Eng., &c., &c. Second Edition. London: Baillière, Tindall & Cox. 1902. Fcap. 8vo. Pp. 130.

It is clear that the author has dedicated much care and time to the publication of this small but very comprehensive

manual—and further, very successfully done so—being a pocket work that we can confidently recommend to the notice of every student and practitioner of dental surgery. There seems to be exactly the right amount of instructive material, neither too much nor too little, and this put plainly, yet scientifically, and not in language "over the head" of the younger aspirants to medicine. "*Elementary Nature*" of the teeth is followed by chapters dealing with calcification, the tissues, oral development and homologies of teeth, respectively; practical microscopy receives attention in the final division.

Throughout, this brochure is thoroughly and practically written. It has now reached a second edition, and, coming from the pen of an experienced and well-known dental surgeon, is just the kind of work which should aid—and will aid—all interested in the subject. Neatness and compactness have borne credit to the publishers.

Merck's Index. II. Auflage (Second Edition). Abgeschlossen Ende Juli, 1902. Darmstadt. 1902. 8vo. Pp. 374.

It is now barely five years since the first edition of this Index was published, and during that time 10,000 copies of the book have been distributed. The issue thus having been exhausted, it became necessary to prepare a second edition. The same basis has been broadly adopted in the present revision. The original plan, which has again been followed, was to take the whole range of products coming within the author's commercial dealings; and whilst, consonant with the nature of the work to which his house has devoted itself since the beginning of its existence, chief attention has been given to the needs of physicians and pharmacists, Mr. Merck has also endeavoured as much as possible to devote consideration to other scientific and technical requirements. In this way a work of reference has been provided which affords the means of answering readily many questions regarding chemicals, crude substances, galenical preparations, and technical products. It is evident from a reference to the work that the needs of busy practitioners have been well kept in view, and authorities have been collated in such a

way that the reader is presented in one volume with facts which would otherwise have to be sought out at the expense of much time and trouble in a library of standard works. Mr. Merck duly acknowledges his indebtedness to various authorities in the preface.

The Index is divided into six parts. The first comprises chemical bodies and definite principles, certain galenical preparations, and organic extracts; the second, special solutions and forms of substances used in analytical and microscopical work; the third, crude drugs; the fourth, minerals; the fifth, collections suitable to schools and museums; and the sixth, sundries. Throughout the various sections brevity and compactness have been aimed at, and to aid in this object, abbreviations have been used, of which full explanations are given. In the therapeutic notes special attention has been given to dosage, and the indications of the uses of remedies have been carefully revised. Again, in treating of most easily obtained poisonous bodies their antidotes have been most comprehensively noted.

This new edition naturally witnesses many extensions on the old. A marked feature in its contents is the information on the chemical and physical properties of the substances included, and also that on the technical application of various substances. The section on Reagents has been enlarged by remarks on special modes of application, and the descriptions of collections are more detailed.

Atlas of Illustrations of Clinical Medicine, Surgery, and Pathology. Compiled for the New Sydenham Society. Fasciculus XIV. (Double Number). Fasciculi I. and II. of New Series. London: The New Sydenham Society. Agent: H. K. Lewis. 1902. Folio.

The untiring energy and indomitable will of Mr. Jonathan Hutchinson have fended off the dissolution of the classical literary association, which, though old in years, still bears the name of the New Sydenham Society. Mr. Hutchinson has done more than galvanise into apparent life the Society which owes so much to him. He has, in the fasciculi of the "Atlas of Illustrations of Clinical Medicine, Surgery, and

Pathology" now under review, written a masterly treatise on framboesial syphilis. It is profusely illustrated by coloured and uncoloured plates. The latter are derived from various sources. They illustrate the same malady, as it is observed in different regions under different names—yaws, framboesia, framboesia tropica, framboesial syphilis, &c. The coloured portraits are all copied from drawings which were executed in Ceylon, under the direction of Sir William Kynsey, one of the Fellows of the Royal College of Physicians of Ireland, to whose courtesy the Society is indebted for permission to publish them. They illustrate the conditions which, in Ceylon, and also in some parts of India, are known under the name of "Parangi," or "the foreign disease."

Mr. Hutchinson, at the outset of his masterly treatise, admits that these fasciculi are in some sense a controversial document, the controversy being whether or not yaws is to be distinguished from syphilis. The author's leaning is altogether in favour of the practical identity of the two maladies. "It is admitted almost on all hands that if yaws be not syphilis, it is, at any rate, a specific malady very closely resembling it."

Part II. of Fasciculus XIV., being II. of the Atlas of Clinical Medicine, Surgery, and Pathology, consists of illustrations of the diseases in Ceylon included under the term "parangi." They were prepared from original water-colour drawings by a native artist. Each plate is accompanied by descriptive remarks by Sir William Kynsey, C.M.G., F.R.C.P.I., late Principal Medical Officer and Inspector-General of Hospitals, Ceylon. These coloured plates are sixteen in number. They are highly artistic, and pourtray with striking effect the formidable and repulsive disease or diseases known under the accusing name "Parangi"—the foreign disease.

The coloured plates have been executed by Messrs. Bale Sons, and Danielsson, of London, and they reflect great credit on that well-known firm.

Should the subscription list be sufficiently large to justify the necessary expenditure—the subscription is only one guinea a year—it is proposed to complete the Atlas in five years in fasciculi of from eight to ten plates issued every three months. The illustrations will be selected from published

monographs, hospital and society reports, original drawings loaned for the purpose, and various other sources. The work of collection has already been, to a large extent, accomplished, and the materials in hand may be inspected in the Clinical Museum of the Polyclinic, 22 Chenies-street, London.

We trust that the enterprise of the New Sydenham Society and the energy of the Honorary Secretary, Mr. Hutchinson, will meet their due reward in the shape of a goodly and extending subscription list.

A Manual of Surgery for Students and Practitioners. By William Rose, M.B., B.S. Lond., F.R.C.S.; Professor of Clinical Surgery in King's College, London, and Senior Surgeon to King's College Hospital, &c.; and Albert Carless, M.S. Lond., F.R.C.S.; Surgeon to King's College Hospital, and Teacher of Operative Surgery in King's College, London; Examiner in Surgery to Glasgow University, &c. Fifth Edition. University Series. London: Baillière, Tindall & Cox. 1902. Pp. 1213.

That a fifth edition of this manual should be called for within four and a half years after the appearance of the first bears ample testimony to the popularity of the book. One of the most noticeable changes in the present edition is to be found in the opening chapter. Hitherto the first chapter in manuals and treatises on Surgery has been devoted to inflammation; but as the foundations upon which modern surgery at present exists are to be found in bacteriology and the principles of antiseptic and aseptic surgery, these subjects rightly take precedence—the first chapter being devoted to a study of these essentials; the second to inflammation.

An exhaustive review of a fifth edition, which has appeared but four and a half years after the first, seems to us unnecessary. The only point to which we would direct attention is that of devoting two pages to a description of the method of employing taxis for the reduction of a strangulated hernia, and discussing the causation of the persistence of the symptoms after reduction has apparently been effected. Surely in the light of modern surgery this is waste of space which might be more profitably occupied. We congratulate

the authors on the success attending their labours in producing the manual, and have no hesitation in recommending the book to the student as one of the best manuals on Surgery in the market.

The Temperance Reader. By the Rev. W. H. Cologan and Sir Francis Richard Cruise, D.L., M.D. (Univ. Dub.); Honorary Physician in Ordinary to His Majesty King Edward VII., in Ireland. Dublin and Belfast: Eason and Son. 1902. 8vo. Pp. 155.

We would very earnestly commend this excellent little book, specially intended as it is for schools, to all who are concerned in the education of the young. Written conjointly by a Roman Catholic clergyman and an eminent Dublin physician, it contains nothing from cover to cover which would offend the tenderest Protestant or Denominational susceptibilities. The one object of the authors is in simple telling language to teach the young the benefits of temperance, and to warn them of the dangers of intemperance.

The first ten chapters are presumably the work of Sir Francis Cruise's pen. In them we learn how food keeps us alive, the necessary elements of our food, the importance of water, concerning intoxicating drinks, about alcohol, its merits and demerits, the evils arising from its constant and unnecessary use, its effects on bodily strength and on the stomach, liver, kidneys, heart and nervous system. All this is told in plain, easily understood, convincing language, and the author concludes by saying (page 69):—"The final conclusion to which we are inevitably drawn is: that if we wish to have a sound mind in a healthy body we must exercise extreme caution in the use of all intoxicating drinks."

Lest it should be thought that the employment of the term "intoxicating" belies the statement made above as to the simplicity of the language, it should be explained that Chapter III. tells us that "our word *intoxicating* is derived from the Greek word *toxicon*, which means *poison*,

so all intoxicating drinks are more or less poisonous." This definition is, as logicians would say, adequate.

The remainder of this instructive "Temperance Reader," with the exception of Chapters XIV. and XV., bears internal evidence that it is the work of Fr. Cologan. Written by a Roman Catholic clergyman, there is not one word in some 80 pages which could hurt the feelings of any reader, no matter to what Communion he belongs. Having given a brief historic sketch of intemperance in the past, the author proceeds to answer the question—"Is there much intemperance now?" by quoting the opinion of many clergymen of various denominations, as well as of General Booth, head of the Salvation Army, of which all the members are abstainers. The General's words are to the point—"The drink difficulty lies at the root of everything. Nine-tenths of our poverty, squalor, vice, and crime spring from this poisonous tap-root." In Chapter XIII. the Judges, past and present, are quoted to prove the intimate relation which exists between intemperance and crime. Drink and pauperism, temperance and thrift, and the further benefits of temperance are the other topics which the Rev. Mr. Cologan discusses. In Chapter XIV. Sir Francis Cruise proves that intemperance shortens life. In Chapter XV. he traces the fatal connection which exists between intemperance and insanity, and concludes with an apt quotation from *Othello*—"O, that men should put an enemy in their mouth to steal away their brains! That we should, with joy, pleasance, revel, and applause, transform ourselves into beasts!"

The authors close their earnest and convincing plea for temperance with the eloquent words of Dean Farrar:—"In the long run, surely—unless men hopelessly blind their eyes and harden their hearts—such evidence cannot but influence not only every true Christian, but also every sensible patriot and every earnest-minded man."

Friedrichshall

TRADE MARK

C. OPPEL & Co. Proprietors
FRIEDRICHSHALL, SAXE MEININGEN, Germany.

London Manager.
G. GREINER.

10 & 12, MILTON STREET LONDON, E.C.

THE ORIGINAL AND OLD ESTABLISHED

APERIENT MINERAL WATER

Recommended by the leading medical authorities

CAN BE OBTAINED FROM ALL THE WHOLESALE MINERAL WATER DEALERS. PATENT MEDICINE DEPÔTS. etc.

SPEIRS' *"MODERN AND UP-TO-DATE"*

INEXPENSIVE, DURABLE, PORTABLE

IRON AND WOOD FRAMED BUILDINGS

FOR

PERMANENT or TEMPORARY

HOSPITALS—SANATORIA

Special facilities for economical erection in any part of the United Kingdom.

ASYLUMS
RECEPTION HOUSES
BUNGALOWS
SHELTERS

Designs and Estimates Free on Application

COTTAGES
BED-ROOM ANNEXES
LAUNDRIES
HALLS, ETC.

TROPICAL HOUSES.

Terms of Payment arranged if desired.

Patented Improved Construction, Guaranteed as Comfortable as Stone Buildings, at One-third Cost of same.

SPEIRS & CO.
Head Office:
125 West Regent St.,
GLASGOW.
Contractors to H. M. Government.

SPEIRS' AUTOMATIC DRY EARTH CLOSETS.

Best and Cheapest in the Market.

PRICES ON APPLICATION.

IMPORTANT TO BUYERS OF OLD LIQUEUR WHISKY.

A New and distinct type of OLD IRISH LIQUEUR WHISKY,

"RICHARDSON'S PEATY IRISH"

Old Bonded Irish Liqueur Whisky.

THIS is a Blend of high-grade IRISH WHISKY, the composition of which has only been arrived at after long and careful study, and by full advantage being taken of the excellent value to be obtained of late years in the finest make of Whisky distilled in Ireland.

Price 42/- per Case, Net Cash.

Should there be no Holder of Stock in your neighbourhood, the Proprietors, **MACMINN, RICHARDSON & CO., 11 Hart Street, Mark Lane, London, E.C.**, will Deliver, Carriage Paid, on receipt of Order, covered by remittance.

PART III.

SPECIAL REPORTS.

REPORT ON PUBLIC HEALTH.[a]

By Sir Charles A. Cameron, C.B., M.D.; D.P.H., Camb.: M. and Hon. F.R.C.P.I.; F.R.C.S.I.; F.I.C.; Ex-President, Hon. Dip. Public Health, and Professor of Hygiene and Chemistry, R.C.S.I.; Vice-President and Ex-President of the Royal Institute of Public Health, and of the Society of Public Analysts; Medical Officer of Health for Dublin; Hon. Member of the Hygienic Societies of France, Belgium, Paris, and Bordeaux, the Academy of Medicine, Sweden, and of the State Medical Society of California, &c.; Examiner in Sanitary Science, Royal University of Ireland; Member of the Army Sanitary Committee, &c.

SANITATION AND VITAL STATISTICS IN JAPAN.

I have as usual been favoured with the Annual Report of the General Sanitary Bureau attached to the Home Department of the Imperial Japanese Government. It is for the year 1896, and was tardy in its publication.

At the end of 1896 the population numbered 21,561,023 males and 21,147,241 females; total 42,708,264. This shows an increase of 437,644 souls as compared with the previous year.

A table is given showing the rate of increase in each of the preceding ten years, the average, it is stated, being 10·27 per cent. These figures are clearly incorrect. In 1887 it is stated that the population increased in the relation of 14·61 per cent., and in the following year the rate of increase varied from 17·76 to 6·56. It is evident that the decimal points in all these figures are in the wrong

[a] The author of this Report will be glad to receive any books, pamphlets, or papers relating to hygiene, dietetics, &c. They may be forwarded through the agencies of the Journal.

place—14·61 should be 1·461, 10·27 1·027, and so on. In population and rate of increase there is a strong resemblance between Japan and Great Britain.

The birth rate was fairly high, being 1 per 349 persons, or 29·48 per 1,000 of the population. There was one birth per 6·58 couples. In one Prefecture (Chiba) the rate was highest, namely, 41·95 per 1,000 of the population. In Okinavvaken Prefecture it was lowest, namely, 22·09. In Hokkaido there were 18·84 births per 100 couples, and in Okinavvaken only 11·89. For every still-birth there were 10·08 mature births.

In 1896 there were 501,777 marriages and 115,654 divorces. In every 1,000 of the population there were 364·9 married persons.

The death rate in 1896 was 20·79 per 1,000. The births exceeded the deaths by 8·69 per cent. During the preceding 9 years the death rate varied from 19·14 to 22·25.

The total deaths numbered 904,473. Of these 68,409 were ascribed to "contagious and infectious diseases," 62,790 to consumption, 165,697 to diseases of respiratory organs other than consumption.

In my address to the Congress of the Royal Institute of Public Health at Exeter [a] I gave an account of the serum manufacture in Japan.

Smallpox appears to be of a very fatal type in Japan, the case mortality being no less than 31·65 per cent. In one Prefecture, Hyogoken, it rose to 49·67 per cent.

As regards typhoid fever, the case mortality was 21·58 per cent. The ratio of the disease per 10,000 of the population was 21·1. There were only 92 cases of typhus fever, of which 28 proved fatal. Taking an average of 10 years, the ratios of cases per 10,000 of the population were as follow:—Dysentery, 16·54; typhoid fever, 9·43; smallpox, 3·62; cholera, 2·86; diphtheria, 1·06; typhus fever, 0·15.

When cholera broke out in January, 1896, the Department adopted every measure likely to prevent the spread of the disease. As regards smallpox, vaccination seems to be carried out extensively. Strong disinfecting measures were employed to combat this formidable disease. In 1896

[a] See the number of this Journal for September.

no fewer than 1,441,452 persons were vaccinated for the first time, and 2,151,336 were re-vaccinated. As the births in 1896 numbered 1,282,178, the primary vaccinations were considerably in excess of the births.

Prostitutes are medically examined in Japan. In the year under review 1,779,845 examinations were made, and 72,280 cases of disease were detected. One woman in 25 women was affected.

There appears to be good hospital accommodation in the Japanese Empire. There were in 1896 two governmental, 164 public, and 426 private, hospitals.

In Japan no one can legally practise medicine or surgery unless his name appears on the Medical Register. The examinations for medical practitioners are a preliminary and final. 2,836 students presented themselves for the first examination. Of these only 619 passed. 1,552 presented themselves for the final examination, and of these 276 satisfied the examiners.

Examinations for licences in pharmacy, dentistry, and midwifery were also held. In 1896 there were 39,214 medical practitioners in Japan. Of these 24,720 had not been examined, having practised "medicine from former times."

BACTERIOLOGICAL RESEARCHES.

The Supplement to the Thirtieth Annual Report of the Medical Officer of the English Local Government Board for 1900-01 contains much interesting matter, especially relating to bacteriology.

Dr. Sidney Martin's researches on the viability of typhoid bacilli in soils commenced some years ago, and were continued in the period covered by the Report. He found that sandy, peaty, uncultivated soils generally were inimical to the bacilli; when introduced into them they perished rapidly. When soils containing organic matter were sterilised and sown with typhoid bacilli the micro-organisms multiplied rapidly and pervaded all the soils. Very different was their condition when the soils were not sterilised, for then they soon became extinct, especially if the soils were damp. Dr. Martin believes that the bacteria

which are indigenous to the soils have the power of causing the intrusive typhoid bacilli to disappear. This is not due to their requiring and using all the organic matter in the soil for their own development, but seems to be the result of the poisonous effects of the soil microbes on the typhoid bacilli. Dr. Martin says that as a general result of his investigations "it is to be concluded that the typhoid bacillus has commonly only a short existence in the soil; that it is destroyed by the products of the putrefactive bacteria which exist in most cultivated soils." Thus it will be seen that Dr. Martin's results are at variance with those of Dr. Robertson, who stated that the typhoid bacillus survived for months in ordinary soils.

In the Report of the Medical Officer of the Local Government Board for 1899–1900 Dr. Theodore Thomson suggested that the prevalence of enteric fever at Chichester might be due to the soil pollution, as it could not be accounted for satisfactorily by polluted water, milk, or defective sewers.

Dr. Houston considers this hypothesis in the Report for 1900-01. He made 30 chemical and bacteriological examinations of sub-soil water taken from Chichester, but found no bacilli of typhoid fever in them, and many of the waters were very pure. It is possible, however, that a soil might be very impure and yet let water pass through it without contaminating it. The soil has wonderful power of retaining organic matter, and even impure water may be made less impure by filtration through an impure soil. Dr. Houston concludes his very elaborate paper as follows:—

Final Conclusions.

A. *Chemical.*

None of the thirty samples of Chichester well water could reasonably have been condemned on the basis of the free ammonia, albuminoid ammonia, or oxygen absorbed from permanganate tests. Nearly all of them would have been classed as of great organic purity, though the amount of chlorine in a number of samples was perhaps suspicious.

B. *Bacteriological.*

(1) The *general results and inferences* are as follows :—

(*a*) *Total number of bacteria per cc.* :—In 3 samples, 1,000 but less than 10,000 ; in 13 samples, 100 but less than 1,000 ; in 11 samples, 10 but less than 100 ; in 3 samples, less than 10.

(*b*) "*Gas*" *in gelatine* "*shake*" *cultures* (24 hours at 20° C.)—In 2 samples, + 10 cc. — 1 cc. ; in 6 samples, + 100 cc. — 10 cc. ; in 22 samples, — 100 cc.

(*c*) *B. coli* (*and allied forms*).—In 6 samples, + 0·1 cc. ; in 6 samples, + 10 cc. — 0·1 cc. ; in 10 samples, + 100 cc. — 10 cc. ; in 8 samples, — 100 cc.

(*d*) *Spores of B. enteritidis sporogenes* (Klein).—In 2 samples, + 100 cc. — 10 cc. ; in 2 samples, + 200 cc. — 100 cc. ; in 26 samples, — 200 cc.

(*e*) *Streptococci.*—In 5 samples, + 10 cc. ; in 25 samples, — 10 cc.

(2) These general results *may* be interpreted as indicating nothing more than that some of the waters were polluted and that others were of great bacterial purity.

(3) But it may be questioned whether they do not indicate something more than this—namely, that the waters in general were possessed of intrinsic biological qualities pointing to their late association with matters of intestinal sort.

(4) Biological qualities such as the above are not proper to waters derived from pure sources ; moreover, they are apt to be masked chemically by the mechanical filtering action of the soil.

(5) If this view be correct, immunity from danger in drinking such waters would be relative, not absolute.

(6) The circumstance that the inhabitants of Chichester drawing their water supply from these local wells have not seemingly suffered to any conspicuous extent from enteric fever in the past, may possibly be referred, not to the complete absence of dangerous pollution of well waters, but to the beneficial mechanical action of the soil in reducing the amount of morbific poison contained in the soil water.

(7) The facts observed by me at Chichester lend some support to Dr. Thomson's tentative hypothesis that soil plays some part in "fostering and localising" enteric fever in this town, inasmuch as the well waters representing the more or less perfectly filtered "washings" of soil nevertheless possessed certain biological qualities suggestive of fouling with matters of intestinal outcome—qualities not inconsistent with the supposition that possibly the soil at Chichester fosters in a higher degree than most soils "the vitality and morbific power of the infective material of enteric fever."

(8) B. typhosus could not be found in any of the samples examined. But B. coli (or closely allied forms) was found in a majority of the waters; and further, a small percentage of these coli-like microbes gave a positive result with the agglutination test, with human typhoid blood, with the blood of a typhoid immunised guinea-pig, or with blood of both sorts.

INFECTED SHELLFISH.

It is now clearly established that shellfish may become the media of spreading infectious disease. Dr. Klein publishes in the Report of the Medical Officer of the Local Government Board the result of his investigations on infection of mussels and cockles with typhoid bacillus and Koch's cholera vibrio. The subject is very interesting, especially to residents at seaside places like Dublin. Although cockles and mussels are usually cooked before being eaten, yet they are sometimes—especially cockles—eaten raw. In the uncooked state they are especially dangerous if obtained from estuaries and shores subject to sewage pollution.

Dr. Klein obtained cockles from Dr. Thresh, Medical Officer of Health for Essex. They were taken from a source not liable to pollution, and were in a fresh and excellent condition. The mollusks were deposited in five gallons of sea water. There was added an emulsion of 24 hours' old agar culture of cholera vibrio. On the following day one mussel and one cockle were taken out and examined. They were lively, and on being touched closed their shells. Their shells were washed, brushed, and dried.

Next, by means of a sterilised instrument, the shell of each mollusk was pierced, the animal extracted from it and cut up, and the turbid fluid thus obtained sucked into a glass pipette. Several drops from each pipette were placed in test tubes containing sterile peptone salt solution. Then followed the usual inoculation at 37° C. In 24 hours the contents were turbid, and on examination they showed vibrios in almost pure culture. Other experiments were made, which were confirmatory of the first results. It was proved that cockles and mussels retained for 24 hours in cholera-infected water may take up and retain the cholera vibrios unimpaired as regards their culture and morphological characteristics.

Similar experiments proved that cockles and mussels took up from infected sea water the bacilli of typhoid fever.

Even when put into clear sea water the mollusks retained for 48 hours the infective micro-organisms.

Dr. Klein remarks that even boiling water may not suffice to destroy infective micro-organisms in shellfish. It is only thorough cooking that is certain to destroy them in the deeper layers of the mollusks.

VENTILATION OF SEWERS.

The ventilation of street sewers by level manhole ventilators was advocated some years ago very strongly, especially by the engineers. In London the system was generally adopted, and Dublin was not far behind London as to the number of ventilators per mile of sewers. It is clear that the direct communication between the sewer and the open air practically renders the sewers open ones. That is much the same as if the sewage were conveyed through the streets in open conduits. Indeed, open conduits would be better, for then the surface of the sewage would be exposed to a larger amount of air, whilst in the present system, the openings being at tolerably long intervals, the escape of effluvia takes place at limited points. Now it often happens that persons whose residences face these openings complain of foul odours which those who reside midway between every two openings do not complain of. In the case of the Dublin sewers, when complaint is made that offensive effluvia

emanate from particular ventilating openings, my diffuser ventilator replaces the open ventilator. The diffuser is a battery of four very porous cylinders of unglazed earthenware. They are placed on the crown of the sewer in a water-tight chamber, which communicates with the external atmosphere. The sewer air diffuses slowly through the cylinders, and the outer air diffuses through them into the sewer. No sudden outflux of gases, vapours, &c., can take place, and no micro-organisms can pass through the cylinders, which are in effect air filters. There are many of these diffuser ventilators in use in various parts of Dublin. There is a general idea that sewers unventilated contain air under-pressure which is likely to force the water traps, especially weak ones, on house drains. My experience is that there is very little pressure, and generally no pressure at all, on the sewer air. It is remarkable that Bristol, the sewers of which are unventilated, has an extremely low typhoid fever death rate.

In Bath there are no ventilating gratings over the sewers in the middle of the streets, but there are about 30 shafts, 30 feet each in height, which act as ventilators. If the exits are not close to windows this method has an advantage over the level manhole ventilators.

COMBINED DRAINS.

An important point in sanitary law was decided on March 17th, 1902, in the English King's Bench. It was in connection with a case stated by the Justices of Essex. The Woodford Urban District Council (appellants) had required the respondent (Stark) to provide separate drains for two houses which he had built. As he had already constructed a single or combined drain, he refused to alter it. The case came before the Justices, who decided that the Urban Council had no power under section 25 of the Public Health (England) Act, 1875,[a] to compel the respondent to make separate drains; that they only had power to prescribe the size, materials, levels, and fall of drains. The Council appealed from this decision, and the case came before the Lord Chief Justice (Alverstone) and Justices

[a] There is a similar section in the Irish Public Health Act, 1878.

Darling and Channell. They allowed the appeal, and remitted the case to the Justices. The Lord Chief Justice observed that the Justices should have decided whether or not a house was constructed according to the section of the Act before them. He did not think that the word "house" in the section meant a building. If it did, then a person making a combined drain of the sort in question would be constructing a sewer which would subsequently have to be maintained by the local authority.

THE PLAGUE IN NEW SOUTH WALES.

The Board of Health of New South Wales has issued an interesting report on the introduction of plague in Sydney. It appears that the SS. Antillian, carrying a crew of 65 persons, left Cape Town, South Africa, on February 19, 1902, and entered Sydney Harbour on March 2nd. She had a clean bill of health issued at Cape Town. On arrival all hands were reported well with the exception of one sailor, who was believed to be suffering from pleurisy. Information having been received that plague had broken out at Cape Town after the departure of the Antillian, the vessel was at once disinfected with sulphurous acid and mercuric chloride, and the sailor was examined by Dr. W. G. Armstrong, Medical Officer of Health, who diagnosticated the sailor's illness to be plague. The vessel was sent to the quarantine station, and the sailor removed to hospital. Inoculation with plague antitoxin was offered to all on board, but only ten accepted the offer. Subsequently a few more were inoculated. Bacteriological researches with material obtained from deep hardened area in an axillary swelling and from the enlarged supratrochlear gland of the patient proved the existence of *Bacillus pestis.*

On investigating the cause of the outbreak of plague on board the steamer, the conclusion arrived at was that it was due to infected rats. No human being was known to be infected with plague at Cape Town when the Antillian left that port. It was, however, known that rats in the south arm of Cape Town docks had been dying from some epizöotic malady. It seems odd that the carcases of some of them had not been examined bacteriologically. For a

fortnight before the Antillian left this epizöotic had been in progress. The Antillian had been berthed in this dock, and no doubt some infected rats had boarded her. About 100 of these animals were found in the vessel after the disinfecting process had been performed.

Only a second case of plague amongst the crew, and the vessel, after thorough disinfection and the destruction of all the rats on board, was allowed to leave for Cape Town. She carried 527 troops, but none of these or of the crew suffered from any suspicious illness during the voyage. This case is interesting, because it seems to prove clearly that rats were the means of communicating plague to man. From the history of the ship for fifteen months previous to her arrival at Sydney it is clear that she was at no port in which there were cases of plague. It is an unwelcome piece of intelligence to learn from this report that although 50 men had been engaged for about a year in the systematic destruction of rats, there was reason to believe that the natural increase among them had continued unchanged for at least all practical purposes.

INSPECTION OF DAIRIES.

The distribution of disease by infected milk is a fact so thoroughly established that there is no further need to discuss its possibility. It is not enteric fever alone that it may spread; it may give rise to enteritis and other diseases. How important, then, is it not that the places from which our milk supplies are obtained should be kept in a cleanly state, and that no person suffering from a contagious disease, or liable to be in contact with anyone suffering from that disease, should be concerned in the work of the dairy. In the rural districts from which so much of our milk comes, but little attention is paid to the hygiene of the dairy, or of the dairy herds. The following regulations as to the inspection of dairy farms have been made by the Plymouth Sanitary Authority:—

BOROUGH OF PLYMOUTH.

Inspection of Dairy Farms.

Any dairy farmer supplying milk, etc., to the inhabitants of Plymouth will undertake to carry out the following regulations:

1. In the event of an employé, or any person residing on or off the farm premises, becoming ill, he or she is to be immediately isolated and certificate of medical practitioner at once obtained as to the nature of illness and forwarded to the Medical Officer of Health, Plymouth. Persons suffering from any infectious or contagious disease to be at once removed.
2. Milk carts never to be used for the carriage of dung or any article of an offensive character.
3. Milk carts, cans, dairy, and all other utensils in connection with the business of the dairy to be kept perfectly clean.
4. No milk to be stored or scalded in a dwelling-room.
5. No milk for consumption to be taken from cows after calving until a proper period, viz., seven days, shall have elapsed.
6. No milk to be supplied from cows whose udders are not in a perfectly healthy condition.
7. Absolute cleanliness to be observed by the persons engaged in milking.
8. The shippens and other premises to be kept properly limewashed at frequent intervals, and premises generally kept thoroughly clean and wholesome.

The Medical Officer of Health to be satisfied as to the purity of the water used on the dairy farm.

Shippens to be kept in accordance with the provisions of the Dairies, Cowsheds, and Milkshops Order, 1899, as to ventilation, cubic space, drainage, and water supply.

In order to carry the foregoing regulations into effect it is proposed :

1. To send circulars to all known suppliers of milk to Plymouth, together with copy of the regulations, and invite them to notify the Medical Officer of Health of their willingness to comply.
2. The Medical Officer of Health would then visit the farms, grant certificate if found up to the required standard, or if alterations or improvements required, to suggest same, and, when carried out, to grant certificate.
3. The list of dairy farmers to whom certificates may be granted, to be published every three months, either by being advertised or printed on handbills, to be distributed to consumers.

4. Certificated dairy farmers to be permitted to advertise in any way they may think proper the fact that their farms have been approved by the Sanitary Committee.
5. After farms have been certified, the Medical Officer of Health or his inspector will visit same occasionally, and if it be found that a licensee has failed to comply with either of the requirements, the same to be reported to the Committee, to be dealt with according to the circumstances of the case.
6. If the Committee should decide to withdraw the certificate from any particular farm, the fact to be made publicly known to the consumers.
7. The foregoing regulations to be carried out with a due regard to the small dairy farmer, so that, whilst the health of the public may be safeguarded, the circumstances of the small dairy farmer may not be overlooked.

DISINFECTION BY FORMALDEHYDE.

The experiments of Rubner Peerenboom prove that dry formaldehyde has no disinfecting power, whilst in moist air it was most destructive on microbial life. In my Manual of Hygiene, published in 1874, I gave the results of experiments which I made, which proved that dry chlorine and sulphurous acid were very much less efficacious in the destruction of micro-organisms than the moist gases of the same kind.

The use of formaldehyde in the disinfection of infected rooms is steadily increasing. It is, however, desirable to employ it liberally and in the form of spray. The gas itself derived from the heating of pastiles containing paraformaldehyde or trioxymethyl is used in the case of clothes. It would be desirable if all new clothing were treated with this gas before they were sent home, for undoubtedly danger sometimes lurks in new clothes, which may have been made by some one just recovered from, say, scarlet fever, or had been in contact with a scarlet fever patient.

CANTRELL & COCHRANE'S

MINERAL WATERS

DUBLIN & BELFAST.

CANTRELL & COCHRANE, LTD.

MINERAL WATER MANUFACTURERS.

DUBLIN & BELFAST.

32 GOLD AND PRIZE MEDALS AWARDED.

Established in 1852, we are the original makers of Aromatic GINGER ALE. Our brand holds the premier position for excellence in every market throughout the world.

We also manufacture with the same care and high-quality materials various Beverages (appended is a short description of the most popular) some of which have distinctive medicinal properties, but all supply a healthful and pleasing variety for the palates of consumers.

The waters used by us for compounding are obtained in BELFAST from the famous CROMAC SPRING, and in DUBLIN from the historic WELL of ST. PATRICK. These springs have been for ages renowned for their purity, and are now enclosed in the grounds of our respective Factories.

We bottle and pack for Wholesale Export as shewn on cover.

The public who may have any difficulty in procuring our Beverages will oblige by writing direct to us for the address of our nearest agent.

AROMATIC GINGER ALE.

WE are the original manufacturers of this celebrated beverage. From its delightful aroma, matchless purity, and true carminative qualities, it has obtained the appellation of "The Beverage of the World." It is wonderfully exhilarating, but perfectly non-intoxicating. As an agreeable aromatic beverage, it is equally suitable for warm or cold weather, and has the additional claim to superiority over all other drinks of a kindred nature by the fact that it does not lose effervescing properties by being decanted. It is as clear and sparkling as champagne.

"CLUB SODA."

A NEUTRALIZER of the lactic acid in the blood, which is the cause of Rheumatism and similar affections; an antidote to acid dyspepsia, and a promoter of digestion. It is considered to be the most wholesome daily beverage that can be taken.

SUPERIOR LEMONADE.

THIS well-known beverage needs no encomium, the manufacture of Messrs. CANTRELL & COCHRANE being so long and so favourably known over the civilized world.

CLUB CIDER.

THIS healthful and delicious beverage is one of the most popular which we make, especially with our juvenile customers; it is flavored with Pine Apple Juice obtained by us direct from the fruit, thus keeping its bouquet no matter how long decanted.

SPARKLING MONTSERRAT.

THIS unique beverage has the pleasant acidity of the Lime Fruit, and that proper measure of sweetness which make certain fruits so refreshing to the system. It is particularly recommended to those suffering from Gout or Rheumatism.

CLUB KOLA.

THIS beverage is made from an extract of the Kola Nut that grows in South Africa, the use of which enables the natives to undergo the utmost fatigue without any other food for long periods. As a nerve tonic our preparation cannot be excelled, particularly when the system is reduced by over indulgence in alcohol.

ROYAL SELTZER WATER.

THIS Aërated Water combines the mildly alkaline and tonic saline properties of the genuine water of the Seltzer spring, with a full charge of carbonic acid, and presents them in the form of a most refreshing, exhilarating and restorative beverage.

SARSAPARILLA

HAS obtained a wide celebrity as the most effectual preparation of this famous Blood Purifier. The Medical faculty recommend it.

CANTRELL & COCHRANE'S

WORLD-FAMED

Table Waters

As Shipped to
All parts of the World

In Casks or Cases

MANUFACTORIES

Nassau Works ✻ Cromac Building.

DUBLIN - BELFAST,

IRELAND.

PART IV.

MEDICAL MISCELLANY.

Reports, Transactions, and Scientific Intelligence.

Two Careers Compared: Open to the Newly Qualified Medical Man.[a] By L. H. Ormsby, M.D., F.R.C.S., President of the College; one of the Senior Surgeons of the Meath Hospital and County Dublin Infirmary.

It has been customary to inaugurate the Winter Medical Session of study in the School attached to this College by a short address from the President. I, therefore, will endeavour, to the best of my ability, to give you a few of my views on certain subjects connected with the profession you have selected for your "Life's Work." I may mention that since last year the Council of this College appointed a Sub-Committee to confer with a like Committee of the Royal College of Physicians, for the purpose of altering and assimilating our curriculum to that of other Licensing Bodies. The alteration has been agreed to by both Colleges, and we trust that the changes made will be of advantage to our students as well as to the teachers.

I well remember, considerably over thirty years ago, entering this College for the first time and wondering if I should ever be able to overcome the many doubts and difficulties which seemed to beset me at every step.

Our lecturer in anatomy of that day, the late Professor Morgan, with his cheery, encouraging smile, used to advise his pupils to "cheer up and not be dismayed, and all would come right in the end to those who honestly and determinedly stuck to their work, and endeavoured by hard and industrious labour in the dissecting room to become scalpellary and not lingual anatomists."

Medical students have changed so much in the last sixty years that one can hardly believe what a medical student was like in days gone by, as depicted in the novels and periodicals of that time, which represented them as jolly, rollicking, careless young fellows of the Bob Sawyer type—idle, dissolute. It was a common

[a] Inaugural Address introductory to the Medical Session 1902–1903, delivered in the Schools attached to the Royal College of Surgeons, Ireland, November 3rd, 1902.

thing in those days for a young fellow never to attend lectures, never to frequent the anatomy hall, except to sit smoking and telling stories to his friends at the dissecting room fires. He often boasted he never dissected a part or attended a lecture, and yet three months before his final he was able to read up, and after two or three tries got through and became qualified. I wonder what our student in medicine of to-day would think of such a regime! I hardly think he could understand such a system when compared with the present sessional examinations which must be passed in order, or the student's progress would be at once stopped. I think you will all agree with me how far superior the present system is for the student as regards himself, his parents, his teachers, and all concerned. The student of to-day is, as a rule, a steady, serious, hardworking young fellow, always looking forward to an approaching exam., which he knows he must pass before he can prepare for the next. As beginners, I warn you not to waste your time in looking at abstruse and uncommon cases which you will not be able to comprehend, instead of learning to dress a cut or adjust a bandage. You must educate your mind by degrees, first grasping the elementary principles of your profession, and so lay the foundation of a sound, practical knowledge of that noble science. From your hospital you will repair to the medical school, and in the dissecting room let the same rule hold good; do not try to trace nerves and arteries until you have learned the names of the bones and muscles; master the osseous system in your first anatomical year, and you will find the knowledge of the greatest service to you ever after. You will also attend the prescribed lectures during the session. Your lectures being over for the day, you will return home. This is the time to do a little reading, on which subject, I may mention, there is a great difference of opinion. I have always recommended a systematic course of reading for the junior and senior student—that is, find out how many hours you can read with benefit; it may be only three or four hours, but whatever it is, let that be kept to. Let no single day pass without furthering the scheme you have resolved in your mind to accomplish. By thus working on a system you will be astonished how much good and lasting work has been got over in a month; far more, I can assure you, than by spasmodic fits of apparently very hard labour and close reading, which, like the storm, is usually followed by a dead calm of idleness! If you want to keep your health in a state that will enable you to study, you must also think of recreation; for I would be the last person in the world to wish you to forget

that. Mental tension requires mental relaxation ; in this equipoise mind and body work more harmoniously together. You should, if possible, after the hours of lecture take a daily walk, not in the precincts of the city, but towards the country. If you do not care to walk or cycle, the various trams and railway lines afford a cheap mode of enjoying the open air. If you work hard all the week you may take a half holiday on Saturday, which you can spend with advantage in relaxation such as football, golf, or cricket. Sunday will, as a matter of course, be a day of rest, and you can thus begin work on Monday with renewed vigour. Lastly, gentlemen, be extremely careful to give yourselves (those who live in lodgings particularly) good, generous diet ; if you work hard you must feed in proportion ; it is false economy and will only undermine your health to do otherwise. Many students, I know, are straitened in means while proceeding with a very expensive profession ; others spend their money on other things, and stint themselves in food to the detriment of their health. To third and fourth years' men my remarks apply as well as to beginners. I would merely add, you must advance in proportion, so that when you are eligible you will be able to pass your examination without delay, instead of becoming a chronic of six or seven years' standing, a fate by no means uncommon among the procrastinating and the idle.

To you who are qualified, or who are just about to qualify, permit me to say a few words. This is a time generally of very great anxiety and doubt, and perhaps the most important era in your whole career. Like a ship freighted with precious cargo about to leave the shelter of a friendly harbour to enter upon the rough billows of the open sea, you are emerging from a state of pupilage to take upon yourself the responsibilities of life ; but a stout heart will breast its billows, and a strict adherence to the course of duty and of honour will bring you safe through its storms and turmoil to a haven of tranquil content and well-earned repose. The first step towards settling down in your profession, therefore, should be seriously and calmly considered ; the advice of judicious friends should be sought ; but above all things do not indulge in vacillation. Valuable time is wasted and good opportunities are frequently lost in coming to a decision. You will ask what prospects are before you. In answer I may mention you have the Army, the Navy, and the Indian Military Services, Foreign Appointments, Ship Surgeoncies, and lastly, private practice in the country or city. Of the present and future prospects of two

of these I would like to say a few words. To commence with the Royal Army Medical Corps.

ROYAL ARMY MEDICAL CORPS.

A candidate for a commission in the Royal Army Medical Corps must be 21 years and not over 28 years of age at the date of the commencement of the examination. He must possess, under the Medical Acts in force in the United Kingdom at the time of his appointment, a registrable qualification to practise. He must fill up a form of application and declaration which can be obtained on application to the Director-General, Army Medical Service, 18 Victoria-street, London, S.W., and submit it to the Director-General in sufficient time to permit of reference to the Medical School in which the candidate completed his course as a medical student.

The Dean, or other responsible authority, of such school will be requested by the Director-General to enter a confidential report as to his character, conduct, professional ability, and fitness to hold a commission in the Corps, and to this report special importance will be attached. After the form of application and the confidential report above alluded to have been received, the Director-General will have his physical fitness decided by a Board of Medical Officers, in accordance with regulations which can also be obtained from the Director-General. The entrance examinations are held twice in the year—usually in January and July. The Secretary of State reserves the right of rejecting any candidate who may show a deficiency in his general education.

An entrance fee of £1 is required for each candidate admitted to the examination, and is payable at the conclusion of his physical examination if pronounced fit.

A candidate successful at the entrance examinations will be appointed a lieutenant on probation, and will be required to pass through such courses of instruction as the Secretary of State shall decide, and after passing the examination in the subjects taught, and satisfying the Director-General that he possesses the necessary skill, knowledge, and character for permanent appointment in the Royal Army Medical Corps, his commission as lieutenant will be confirmed. The commission will bear the date of the officer's appointment as lieutenant on probation.

I have no doubt you are anxious to know what I think of the R. A. M. C. as a career.

Much has been written in the Press, and spoken in lecture theatres and elsewhere, regarding this most important branch of the Service. Change after change has been made by respective Secretaries of State for War in warrants without number, so as to endeavour to improve the Medical Department of the Army, in order to make it attractive and to induce the best and most eligible of our young qualified men to enter its ranks. Warrants are very good indeed if they guarantee all that they promise, and that the provisions will be lasting and secure. The recent War in South Africa has, perhaps, done more to direct public attention to the Corps than anything else. A recent writer on the subject has justly said that all praise is due to the increased science, knowledge, and skill exhibited by the Surgeons of the Royal Army Medical Corps and their civil colleagues in South Africa; and if the Government and the public do not give the reward and the credit to which they are justly entitled, I hope it will be some consolation for them to know that the whole profession in the United Kingdom consider that their conduct through the whole campaign in South Africa was beyond all praise. Our eulogies of the R. A. M. C. cannot be too great, nor our support and assistance to them too thorough, in their fight against War Office starvation of the Medical Service and sentimental official red tapeism. Has any other unit of the South African field force, except the R.A.M.C., been expected to carry on an exceptionally large war service with its peace establishment, and further, with practically no reserve to draw upon (except the Civil Ambulance Organisations) to make up for the wastage which occurs even in peace, let alone in war. Yet the R. A. M. C. were expected to do it, and astonishment was shown and abuse showered when it was proved to be a physical impossibility. Here again it seems that anything is good enough for a doctor. It is useless for sentimental lay scribblers to write arrant nonsense about the necessary luxuries and requirements for the treatment of the sick and wounded in war. War is war; and the sufferings and inconveniences of a sudden, unexpected engagement could not have been rectified or alleviated all in a moment on the barren veldt by even the willing hands of a deplorably undermanned service as it might have been in a well-equipped London or Dublin Hospital.

But it is an acknowledged fact, testified by combatants without number of the highest rank, and by one no less great than His Excellency Earl Dudley, Lord Lieutenant of Ireland, who at a public dinner recently in this city stated from personal observation

in the battle fields of South Africa that in no war ever waged at any time, or in any country, were the sick and wounded more rapidly or more efficiently attended by the officers and men of the R. A. M. C. than the one in South Africa. I would only ask my hearers to compare the treatment of the sick and wounded in our previous wars with the treatment of the sick and wounded soldier of to-day.

What about the battles of the Peninsula under Wellington, and the carnage and sufferings that took place at Waterloo? What about the Crimean War? Need I refer to the battle of Solferino on the 24th of June, 1859, which lasted for more than fifteen hours, and in which more than three hundred thousand soldiers were engaged in the most bloody conflict which has occurred in modern times, with sufferings too terrible to relate. And more recently the Franco-German War in 1870.

The want of a rapid and independent Army Medical Transport of medical comforts and appliances to the front was to a great extent the cause of the aggravation of alleged inconveniences in certain places.

However, when all is said and done (as regards Army Reform in the future), no branch of the Service behaved with greater heroism than our splendid brethren in the R. A. M. C. in South Africa, many of whom laid down their lives in the field, and none of whom flinched from going into the thick of the fight when duty called them to do all that love and skill could do for their fallen and suffering fellow soldiers. For such heroism and bravery many Army Surgeons have received at the hands of their Sovereign that priceless and coveted Badge of Bravery—"The Victoria Cross." Need I mention our honorary Fellow, Captain Thomas Crean, V.C., and as the President of this College I, on the part of our Fellows and Licentiates, offer the officers and men of the Royal Army Medical Corps our warm congratulations on their gallantry in the field and the noble discharge of their onerous and endless duties. After Mr. Burdett Coutts' violent attack on the Service a Commission was appointed, who proceeded to South Africa and inspected the situation, the arrangements, conditions, and all other matters in detail, and examined many witnesses competent to give an opinion. This Commission drew up a long and valuable report which exonerated the officers of the Royal Army Medical Corps from blame. The present Secretary of State for War, the Right Hon. St. John Brodrick, took the matter into his hands in earnest, with a firm determination to make the R. A. M. C. the most efficient organisation

in the Army, and for this he merits the best thanks of our College. He at once called to his assistance the men who were in sympathy with his ideas, and who were thoroughly competent to give the necessary information and advice.

An expert Organisation Committee was appointed by Mr. Brodrick, who acted as chairman, and after lengthened deliberation their report and suggestions were issued—Sept. 28th, 1901, and although all grievances were not removed or redressed altogether in this report, still enormous progress was made. The competitive examination for entrance was altered and made far more practical. The pay of the Army Medical Officer in all ranks was materially increased.

Sir William Taylor, K.C.B., one of the most eminent and popular administrative officers in the Service, was appointed Director-General, and in his hands the members of the Corps may always feel that their interests are safe, as he has a thorough knowledge and grasp of the wants and requirements of the Service, and is a strong and determined man, who will see that his Corps have fair play and justice done to them.

The next step was to see that the Director-General, the administrative head of the Corps, should have a seat on the Army Board and War Office Council, and should thus be able to take part in all deliberations in connection with his arm of the Service.

This has been granted, and now he takes his seat among the heads of all the other branches of the combatant ranks of the Army Council. The next in command at 18 Victoria-street is the Deputy Director-General. I am happy to say, to the credit of Mr. Brodrick, that he selected an Irishman for the post, in the person of Lieutenant-Col. A. Keogh, C.B., now ranking as Surgeon-General, a go-ahead countryman of our own, who did splendid work in No. 2 General Hospital at Pretoria during the late war, and showed himself to be a careful, painstaking, and efficient officer, who had a remarkable aptitude for administrative and constructive work. Mr. Brodrick may therefore be congratulated on the two men he selected to carry out the much-needed reform in the Service, and for the sake of our country I am glad that one is an Irishman.

An Advisory Board was then elected.

The grievance as regards increase of pay for our Army Medical Officers serving in India, on the same line as the combatant ranks, has been, I have from an official of high position the best authority for saying, almost finally arranged with the Secretary of State for India. From all I can learn there are a few minor grievances yet

to be remedied, which, no doubt, will receive attention from the Advisory Board, and will be rectified in due course. I am happy to say the retiring pension after 20 years' service at £1 a day has been also assured.

Netley Hospital as an Army Medical School has been abolished. It will be still, however, utilised as a great Military Hospital.

But Mr. Brodrick, with the enthusiasm and determination of a great reformer, has established an Army Medical Staff College in London, and it is now in temporary buildings in full active work, although somewhat hampered for suitable accommodation, which could not be produced all at once in starting. At the inaugural dinner of the Medical Staff College, held on the 8th October last, at the temporary mess in the Hotel Belgravia, Mr. Brodrick, the guest of the evening, spoke in most complimentary terms of the Corps and its Chief, and he intimated that he hoped soon to see the Medical Staff College in London accommodated in suitable buildings provided with laboratories, lecture theatres, and research class rooms, second to none in the Kingdom, where lieutenants on probation will remain for a short time on joining the Service, and where senior officers of the Corps can attend special classes during the period of study-leave, and thus keep themselves abreast of the advances in Medical Science. They will be thus enabled to complete investigation in this Metropolitan Staff College, which probably they may have commenced when serving in foreign stations.

I may mention that the Secretary of State for War and the heads of the Department are determined to make the Army Medical Officer in future the most highly trained scientist to be found in any country, and ample facilities will be given to men having different aptitudes to study and practise special and scientific work in the Service. The adaptation of the Theory and Practice of Medicine with the Science and Art of Surgery to the science and art of war, together with the successful and efficient treatment of the sick soldier, whether in peace or in war, as well as the maintenance of his physical condition as a fighting unit, will be the burning question in future: and to have this carried out these humanitarian problems must be undertaken by a highly trained and efficient body of Army Medical Officers. And I have the best authority for saying that zeal and honest work in the Corps means the securing of position and good posts in future. Seniority alone without efficiency and administrative capabilities will not, I am

led to believe, secure promotion. The best man will advance to the higher ranks, and the heads of the Service look to the civil profession to support them in this wise and just decision, and I venture to think the appointment of the Advisory Board will prove a boon and assistance to the Director-General in securing the best and most suitable candidates for the Service.

In conclusion, I shall mention the present rates of pay of officers in all ranks of the Royal Army Medical Corps, and I will ask you to compare it with the pay of other professional positions in civil life.

Inclusive of all allowances, except field and travelling allowances—

ARMY MEDICAL SERVICE.

	Yearly.
At Head Quarters :—	
Director-General	£2,000
Deputy Director-General	1,500
Assistant Director-General..	850
Deputy Assistant Director-General.. ..	750
Exclusive of allowances daily—	
At other stations :—	
Surgeon-General	£3 0 0
Colonel	2 0 0
Lieutenant-Colonel	1 10 0
Lieutenant-Colonel specially selected for increased pay after at least 8 years' service abroad	1 15 0
Major	1 3 6
After three years as such	1 6 0
Captain	0 15 6
After 7 years' total full pay service	0 17 0
After 10 years' total full pay service	1 1 0
Lieutenant on probation and Lieutenant ..	0 14 0

I therefore think that a young qualified man must be very hard to please if he refuses to enter the Service where the status and position of the Army Surgeon is now so well defined, and it is, in my opinion, a military service which any gentleman should be proud to serve in, and where merit and loyalty to his Corps will secure a successful career. I therefore have no hesitation in advising all those who have a taste for military life to enter the R. A. M. C. It is undoubtedly a splendid Service, and offers great advantages to the young doctor of culture, efficiency, and social

position joining its ranks. The Service also affords the medical officer an opportunity of seeing life and the world in some of its best aspects, and foreign service has many and varied attractions in our widely-extended Empire.

IRISH POOR LAW MEDICAL APPOINTMENTS.

I now turn nearer home. I would wish to direct your attention to the gross and heartless treatment in many instances meted out to our medical brethren serving in the Irish Poor Law Medical Service throughout the country, particularly on the question of superannuation after a lifetime of toil and ill-requited labour.

What inducement, I would like to know, is there for highly qualified young medical men to enter the Service, when they know that after forty or fifty years of hard and incessant labour they must depend on the caprices and tempers of a set, in many cases, of hard and unsympathetic guardians to grant them a small pittance by way of superannuation, to keep them in some comfort (or rather existence) for the declining years of their lives. I find the average salary paid to Irish Dispensary Medical Officers represents a small fraction under £100 per annum, out of which the Medical Officer must pay all expenses necessary for the discharge of his duties—rent, taxes, horse, vehicle, servants, &c. So that practically no portion of his salary is available for his support, for which he has to depend on the small emoluments arising from his salary as Medical Officer of Health for his district, a salary which averages from £10 to £15 a year, and registration and vaccination fees, averaging about £30 a year, together with whatever private practice his district may afford him.

It is regrettable that there are found doctors willing to enter the Service under the present conditions, the acceptance of which degrades the honour and dignity of the whole profession, and means that so long as men can be found to fill the ranks this state of affairs will continue.

Yet, year after year, old and worn-out Dispensary Medical Officers, who ought to have received their just pensions long ago, are to be seen at all hours of the day and night, in all weathers, pursuing their beneficent work at a time when their masters, the guardians, are enjoying comfortable ease and untroubled sleep. There is, in my opinion, no more sad and discreditable system in any department of the public service than the one I am forced to allude to to-day.

Who has not heard the story of Dr. Smyth, the Dispensary Medical Officer of Burtonport, Co. Donegal, to which the district of Arranmore is attached. On this island, which is out in the Atlantic, separated some miles from the mainland, an outbreak of typhus occurred in November last, and it was while working among the fever-stricken people that Dr. Smyth lost his life by contracting the disease. The history of his work supplies one of those types of noble self-sacrifice and unflinching devotion to the path of duty, which touches our finer feelings and sends a thrill of pride to the heart. Dr. Smyth's devotion to duty anomg the fever-stricken homes of Arranmore cost him his life, and I believe there are many men now in the Service who would display the same heroism if it was necessary to do so. I am happy to say the widow and family of the late Dr. Smyth, thanks to the able and determined advocacy of our respected Ex-President, Sir Thomas Myles, have been amply provided for.

I have referred to this occurrence, not because it stands out in singular prominence, but because it is an act of heroism which happens to have engaged public attention, and to have evoked in a remarkable degree public sympathy. But scores, hundreds perhaps, of similar instances of devotion to duty have characterised the lives of Dispensary Medical Officers in their dealings with the sufferings of the poor, but as they were less strikingly tragic they did not challenge public attention. The following, taken from authentic records, will show how a long life spent in the Dispensary System may be rewarded towards its close.

CASE OF SUPERANNUATION REFUSED.

In the *Derry Standard* of September 15th, 1902, a report is given of the meeting of the Donegal Board of Guardians and District Council on Saturday, September 13th. The following appears :—

"An application from Dr. R. H. Pope, late Medical Officer of the Workhouse, who recently tendered his resignation through failing health, for superannuation was next considered. Mr. Edward Melly proposed, and Mr. Philip M'Golrick seconded—*That Dr. Pope be allowed no superannuation ;* and this was passed unanimously."

Will intending candidates for Poor Law appointments read, mark, and inwardly digest the foregoing paragraph ?

There are instances without number where medical officers,

knowing that they would be refused superannuation, held office long after they were incapable of efficiently performing their duties, until, like the late Dr. Walsh, they fell by the roadside and were carried home to die.

Here is another instance taken from *The Medical Press and Circular* of October 22nd, with respect to—

DISPENSARY DOCTORS AND LEAVE OF ABSENCE.

The necessity for combination among medical men in the Poor Law Service is becoming daily more apparent. Another example of this is afforded by the report in the *Galway Express* of September 27th, 1902, of the proceedings of the Galway Guardians on the 24th of the same month.

Dr. Kirwan, of Oranmore, and Dr. Glynn, of Turloughmore, applied for leave of absence. It was reported to the Board that £16 had been paid for discharging Dr. Kirwan's duty when on leave in 1901, but that he had got no leave this year, whereupon the Board refused the leave sought.

Dr. Glynn's case, from the enlightened point of view of the guardians, was a very glaring one. It was shown that "during eighteen months he had caused expense to the guardians to the amount of £37 16s. He, not having the fear of the guardians before his eyes, nor the interests of the ratepayers at heart, had contracted typhus fever in the discharge of his duty, and so had imposed on the Board an expense of £37 10s. for substitutes during his illness, and of £10 10s. for substitute during leave of absence, presumably for recovering his strength. Such conduct could not be encouraged, and by a vote of thirteen to four it was resolved to give him three weeks' leave if he paid for his own substitute."

It is obvious that no combination of medical men can prevent their contracting infectious disease, nor enable them while ill to discharge their duties, but it certainly can prevent their being penalised for having the audacity to succumb to infection, or under the hardships and exposure of their calling.

The whole Irish Dispensary System at present urgently cries out for reform.

As it stands, the chief requirements (first two essential) in order to obtain an appointment are—(1) religion, (2) politics, (3) favour and affection. And this is a liberty-loving country! Day by day we read in our newspapers reports of elections where the merits of the candidates are flouted and the interests of the poor forgotten.

What, in the name of common sense and justice, has a man's religion or politics to do with his efficiency? Surely it is time to brand such a line of action as a public scandal.

Here is another instance that recently occurred in the West of Ireland: Dr. C. reported having engaged Dr. C. to act for him during the time he would be away on his holiday.

Guardian No. 1—"This doctor is after coming from South Africa, and we will not have him."

Guardian No. 2.—"No matter who we have, we will not have one of Chamberlain's hirelings."

Guardian No. 1.—"I propose that one of our own medical officers be employed."

Guardian No. 3, in supporting the resolution, said that "Dr. C. went to South Africa to help to slay liberty-loving people, and now he had come to live among them, but they would not have his services."

Guardian No. 4.—"It would be very hard on the people of B. to have to go to C. for a doctor."

Guardian No. 5.—"We would rather go to C. than have the South African doctor."

The proposed resolution was then carried.

I cannot understand the attitude of the Local Government Board, which, in the exercise of its statutory powers, has a right to step in and prevent some of the grosser cases of mal-administration of the Medical Service throughout the country.

The Local Government Board, I regret to observe, in many instances where the guardians wished to increase the salaries of the medical officers for lengthened service and increased duties, for reasons best known to themselves refused to sanction such increase, thus setting an example of niggardly treatment to Boards of Guardians who are already sufficiently indisposed to give fair remuneration for efficient work.

In the Naas Union the guardians, to their credit, determined to increase the salary of Dr. Morrissey, the Dispensary Medical Officer of Ballymore, to the same level as his brother medical officers, which after much discussion and a great fight was carried by an overwhelming majority. The Local Government Board calmly looked on while the battle raged between the guardians, and then informed them that the increase of salary could not be sanctioned owing to the fact that Dr. Morrissey had been such a short time appointed, and that he had accepted the miserable sum

of £100 a year. I regret this all the more as a distinguished Fellow of this College presides over the Medical Department of the Local Government Board, in the person of my esteemed and valued friend, Dr. Thomas Stafford, who himself held the honourable post of Dispensary Medical Officer, and who must know from personal experience what the privations of the Service are, and who has, in my knowledge, used his influence to ameliorate its conditions in many instances.

For it must be observed that the legal obligation in maintaining the Poor Law Medical Service in a state of efficiency rests primarily on the Local Government Board. The Board have excellent intentions, and, I have no doubt, if the power were committed to their hands would raise the Service to a standard of efficiency, but as the law stands they are unable to give effect to the reform they have indicated.

It must be borne in mind that we do not plead in any spirit of Trades Unionism for increased advantages for our professional brethren, but for an improvement in the system of medical relief which will give the poor, the great majority of our countrymen, the full effect of the benefits to which in all humanity they are entitled. There is no one who has the hardihood to assert that they receive such benefits under the present regime. Do not misunderstand the position—it is not entirely a question of salary. All the features of the present system are objectionable—the mode of election, the issue of tickets, the treatment of the medical officers, the uncertainty of any pensions for old age. These must react to the discontent of the holder of the office and to the detriment of the public service.

I warn all young men of ability and spirit not to enter the Irish Dispensary System until the Government establishes a Local Government Medical Service, somewhat similar to the Services of the Army and the Navy.

Every newly-appointed medical officer should have a minimum salary of £200 a year, exclusive of practice, to start with, and promotion according to service and merit from the poorer to the better districts as vacancies occur, with a full month's holiday as a matter of right, as well as an assured pension according to Civil Service rules.

To bring about reform in the direction indicated, the Treasury may justly be called upon to increase its contributions to the public rates. Ireland, a country of exceptional poverty in the Empire,

requires exceptional treatment, and the additional outlay in aid of poor districts would be a sound political economy.

The Poor Law Medical Service would then be in every way improved if entrance were obtained by open competition, the whole Service administered from one central department. Such department should be controlled by Medical Commissioners who had themeslves acted in the Service, and who from personal knowledge knew the necessary requirements. I could not conscientiously urge you to enter the Service until the salary is increased and the grievance remedied, the only course that will elevate in this politically-distracted country the social and professional standing of the Irish Poor Law Dispensary doctor.

Gentlemen, you have the matter in your own hands. If you are men and not slaves, you will not enter the Service as it at present exists.

SCIENTIFIC RESEARCH AT KHARTOUM.

THE Gordon Memorial College at Khartoum, which Lord Kitchener opened on Saturday, November 8, is now ready for the Chemical and Bacteriological Research Laboratories presented by Mr. Henry S. Wellcome during his recent visit to the Soudan. The fixtures and appliances made in England have already been shipped. The equipment for scientific work is most complete in every detail, and will be equal to that of any similar laboratories in Europe. The Sirdar has appointed, as Director of these Research Laboratories, Andrew Balfour, M.D., B.Sc., D.P.H., of Edinburgh, whose work in bacteriology is well known. The Soudan presents exceptional opportunities for the study of tropical diseases, especially Malaria, Typhoid, and Dysentery, and it is anticipated that the results of the investigations of Dr. Balfour and his staff will be of the greatest importance. Dr. Balfour will also assist the authorities in the investigation of the criminal poisoning cases which are very frequent in the Soudan. The character of the poisons used by the natives is at present often obscure, and it is possible that the work in these laboratories may considerably increase our knowledge of toxic agents. Apart from the original researches and general sanitary work, Dr. Balfour and his staff will devote their attention to the study of the cereals, textile fibres, and various matters affecting the development of the agricultural and mineral resources of the country.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

President—Lombe Atthill, M.D., F.R.C.P.I.
General Secretary—John B. Story, M.B., F.R.C.S.I.

SECTION OF PATHOLOGY.

President—E. J. McWeeney, M.D.
Sectional Secretary—A. H. White, F.R.C.S.I.

Friday, November 7, 1902.

Professor E. H. Bennett in the Chair.

Dislocation of Shoulder.

Professor E. H. Bennett exhibited specimens and read a note on some cases in which Kocher's method of reduction of dislocated shoulder has failed. [His paper will be found at page 401.]

Dr. Knott said he would like to ask Professor Bennett to explain why he considered Kocher's method is so much superior to horizontal and upper vertical extension ?

Professor Bennett, in reply, said the reason Kocher's method is so useful is that it applies particularly to the intra-coracoid dislocation, which is the most common, or its immediate modifications. He had never met with a case which resisted Kocher's method, except the two he had described.

Adenoma of the Liver.

In describing this case, Dr. Earl said the liver showed the most marked cyanotic atrophy he had ever seen. His attention was drawn to a small, round mass, well marked off, and of a green colour. The liver contained a large number, fifteen or twenty, of these masses, and most probably there were more. The largest was about half an inch in diameter. The liver itself had altered in appearance and the histological characters of these masses were hard to make out; none of them abutted on the surface, and consequently his attention had not been drawn to them. The cells in them bore a close resemblance to liver cells. They were divided into lobules, and were surrounded by a fibrous capsule. The cells were arranged after the manner of normal liver cells, but

with less regularity. He found coagulated bile present, and there was a great deal of granular bile pigment in the liver. Sections of some of the smaller tumours showed more marked resemblance to normal liver structure. These tumours appeared to be one of the forms of adenoma. He presumed that cyanotic atrophy of the liver had nothing to do with these.

Dr. Dawson asked Dr. Earl whether this liver showed signs of malignancy? He had seen in Vienna two cases of adeno-carcinoma of the liver which resembled these.

Professor O'Sullivan said he would like to ask Dr. Earl if there was any difference between the cells in the liver and normal liver cells. He had a case of extreme cirrhosis of the liver in a young girl, in which there were growths through the liver, when the cells were larger than normal and less regularly arranged. He looked upon this as regenerative.

Professor White said the question of whether this was an adenoma of the liver or an adeno-carcinoma must be left to Dr. Earl. He was inclined to agree with Dr. Earl that it was adenoma from its microscopic characters, and also as he felt sure that Dr. Earl would not have given it the name of adenoma if secondary growths were found. He said Dr. Scott had shown some time ago a case of a large single adenoma of liver.

Dr. Earl, in reply to Dr. Dawson, said he felt certain that the tumours were not malignant. There were no growths found elsewhere than in the liver, and the fact that the resemblance to normal liver cells was so close would negative the view that the tumours were malignant. With regard to Dr. O'Sullivan he said he did not see any great difference between these cells and normal liver cells. As to whether there was an attempt at regeneration, that could not be decided.

Cavernoma of the Liver.

Dr. Earl said that this was a well-recognised and not uncommon condition which occurs in human beings and in the lower animals. Cavernomata were sometimes single, but generally, as in this case, multiple, and usually occurred in elderly people, though sometimes they were seen at a very early age, even in infants of a few weeks old. They appeared of a dark purple colour on account of the contained blood, and were of various sizes. They might be as large as an apple. They were not raised above the surface of the organ when they abutted on it, and they were

also found in its substance. Their structure resembles that of the cavernous tissue of the penis. Simple muscular tissue is said to occur in their walls. In some cases liver cells have been found in their walls. The larger tumours are surrounded by a fibrous capsule; the smaller merge in the liver substance without any capsule. Though the condition is well recognised, there is considerable doubt as to its pathogenesis. Cavernomata have been considered to be tumours, but they never cause any enlargement of the liver. They are merely substitutions of the liver tissue, and are generally believed to be due to dilatation of lobular cavities with subsequent pressure atrophy. Tumours very similar to these have been produced in cats by causing narrowing of the hepatic vein. The fact that liver cells are found in the walls is in favour of their origin from pre-existing capillaries in these places.

An Epithelial Tumour of the Gall-Bladder.

Professor J. A. Scott exhibited a tumour of this description removed by operation by Mr. Heuston. There was a large mass attached to the gall-bladder, which was swollen. There were calculi in it and in the surrounding tissues. A section showed it to be of undoubted epithelial origin. Most of the cells were undergoing a mucoid degeneration.

Conglobate Tuberculous Tumour of the Choroid.

Mr. Arthur Benson and Dr. Earl showed a case of above in a girl, aged fourteen. The growth, which dated only from March 27, 1902, occupied almost the whole interior of the globe, the vitreous being pushed to one side and the lens remaining transparent throughout. This variety of tuberculosis of the choroid was stated to be a very rare affection, whilst the miliary variety was comparatively common. In this case another remarkable circumstance was noted—viz., that there was no tuberculous family history, nor was there any other focus of tuberculous disease to be found in any other part of the patient. The sections, which were made by Dr. Earl, showed that caseation had taken place in the tumour, and giant cells were also visible. The growth was adherent to the sclerotic in one place, and the retina was wholly detached. The other eye was normal, and the child, though naturally frail, seemed to be in excellent health.

Dr. Earl said that on cutting into the eye he found the vitreous chamber almost completely obliterated by a whitish mass, and

he could see a couple of opaque spots even with the naked eye. On examining this mass he found it was strongly adherent to the sclerotic at one point, and at no other. It was a tuberculous mass with a small quantity of caseation. The ciliary processes and the iris were quite free. The layers of the retina were to be seen.

Mr. Story said the case reminded him of a specimen which he had exhibited some two years ago. It was one of a solitary tuberculous tumour in a young woman, aged eighteen or twenty. It was in the optic papilla, and simulated the choked disc of intracranial disease. The growth in this case was retinal rather than choroidal.

THE CONTAGIOUSNESS OF PNEUMONIA.

Although pneumonia is one of the oldest known diseases, there are many points in its ætiology which remain obscure. The explanation may possibly be found in the fact that it is not a distinct morbid entity, but is merely a collateral consequence or a sequel of many complex pathological states. It is very generally believed to owe its origin to chill; but, although this may be one factor in its production, it cannot be the only, or even the principal, one. Nor can the pneumococcus be the essential factor in all forms of pneumonia, since its presence cannot be demonstrated. Then, too, there is a particular variety of the diesase, which appears to be readily capable of transmission to persons exposed to infection, a quality which is by no means characteristic of all cases in which the pneumococcus is found. With the progress of knowledge it may ultimately be possible to differentiate the various forms of pneumonia one from another by the aid of bacteriology, although clinically they are indistinguishable. In this respect it is highly desirable to distinguish between active and passive pneumonia, the first being secondary to some deeply-seated organic disturbance; while the latter is, in the great majority of instances, probably the direct outcome of infection—*The Medical Press*, Oct. 22, 1902.

LITERARY INTELLIGENCE.

The first edition of Dr. A. T. Schofield's book, entitled "The Force of Mind; or, the Mental Factor in Medicine," which was given to the public as recently as the 24th of last July, has been, owing to its rapid sale, out of print for several weeks. We are informed by the publishers, Messrs. J. & A. Churchill, that the type has been reset, and that the new edition, revised by the author, is now ready.

SANITARY AND METEOROLOGICAL NOTES.

Compiled by Sir J. W. Moore, B.A., M.D., Univ. Dubl.;
F.R.C.P.I.; F.R. Met. Soc.;
Diplomate in State Medicine and Ex-Sch. Trin. Coll. Dubl.;

Vital Statistics.

For four weeks ending Saturday, November 1, 1902.

IRELAND.

Twenty-two Town Districts.

The average annual death-rate represented by the deaths—exclusive of deaths of persons admitted into public institutions from without the respective districts—registered in the week ending November 1, 1902, in the Dublin Registration Area and the twenty-one principal provincial urban districts of Ireland was 21·1 per 1,000 of their aggregate population, which, for the purposes of these returns, is estimated at 1,092,401. The deaths registered in each of the four weeks ended Saturday, November 1, and during the whole of that period, in the several districts, alphabetically arranged, corresponded to the following annual rates per 1,000 :—

Towns, &c.	Week ending				Average Rate for 4 weeks	Towns, &c.	Week ending				Average Rate for 4 weeks
	Oct. 11	Oct. 18	Oct. 25	Nov. 1			Oct. 11	Oct. 18	Oct. 25	Nov. 1	
22 Town Districts	21·2	22·8	23·4	21·1	22·1	Lisburn -	0·0	18·2	4·5	0·0	5·7
Armagh -	13·7	6·9	34·4	13·7	17·2	Londonderry	7·7	10·2	12·8	15·4	11·5
Ballymena	9·6	9·6	19·2	9·6	12·0	Lurgan -	26·6	13·3	17·7	26·6	21·1
Belfast -	21·5	22·4	21·2	21·7	21·7	Newry -	16·8	16·8	12·6	8·4	13·7
Clonmel -	10·3	25·6	20·5	15·4	18·0	Newtownards	17·2	11·4	17·2	28·6	18·6
Cork -	24·0	14·4	22·6	21·9	20·7	Portadown	10·3	15·5	10·3	20·7	14·2
Drogheda -	24·5	16·3	20·4	12·3	18·4	Queenstown	33·0	26·4	19·8	19·8	24·7
Dublin (Reg. Area) -	24·8	26·8	30·0	24·0	26·4	Sligo -	33·6	19·2	9·6	4·8	16·8
Dundalk -	19·9	8·0	16·0	12·0	14·0	Tralee -	5·3	37·0	15·9	5·3	15·9
Galway -	7·8	35·0	23·3	3·9	17·5	Waterford	11·7	23·4	23·4	35·1	23·4
Kilkenny -	14·7	49·1	9·8	14·7	22·1	Wexford -	9·3	14·0	23·3	28·0	18·7
Limerick -	23·2	27·3	21·9	17·8	22·5						

The deaths (excluding those of persons admitted into public institutions from without the respective districts) from the principal zymotic diseases, registered in the 22 districts during the week ended Saturday, November 1, were equal to an annual rate of 3·2 per 1,000, the rates varying from 0·0 in fourteen of the districts to 13·6 per 1,000 in Waterford—the 18 deaths from all causes registered in that district including 2 from measles, 3 from whooping-cough, and 2 from diarrhœa. Among the 149 deaths registered in Belfast were 8 from measles, one from scarlet fever, 3 from whooping-cough, 3 from diphtheria, 3 from enteric fever, and 4 from diarrhœa.

DUBLIN REGISTRATION AREA.

The Dublin Registration Area now consists of the City of Dublin as extended by the Dublin Corporation Act, 1900, together with the Urban Districts of Rathmines, Pembroke, Blackrock, and Kingstown. The population of this Area is 378,761; that of the City being 293,394, Rathmines 33,208, Pembroke 26,025, Blackrock 8,759, and Kingstown 17,380.

In the Dublin Registration Area the births registered during the week ended Saturday, November 1, amounted to 183—88 boys and 95 girls; and the deaths to 183—92 males and 91 females.

Deaths.

The registered deaths represent an annual rate of mortality of 25·2 in every 1,000 of the population. Omitting the deaths (numbering 9) of persons admitted into public institutions from localities outside the Area, the rate was 24·0 per 1,000. During the forty-four weeks ending with Saturday, November 1, the death-rate averaged 24·3, and was 2·1 below the mean rate for the corresponding portions of the ten years 1892–1901.

Sixteen deaths from measles were registered during the week ended Saturday, November 1. In the preceding 4 weeks 8, 11, 19, and 20 deaths respectively had been registered. Three deaths from scarlet fever were registered; 3 deaths from *diarrhœa* and one death each from influenza, whooping-cough, diphtheria, and continued fever were registered; also 2 deaths from enteric fever.

Tuberculous disease caused 33 deaths, namely, one from tuberculous phthisis, 20 from *phthisis*, 4 deaths from tuberculous meningitis, and 8 deaths from other forms of the disease.

One death from carcinoma, and 6 deaths from *malignant disease*, "*cancer*," were registered.

There were 20 deaths from diseases of the nervous system, including 8 (all of children) from *convulsions*.

There were 18 deaths from diseases of the heart and blood-vessels.

Thirty-seven deaths were registered as being due to diseases of the respiratory system, equal to an annual rate of 5·1 per 1,000 of the population. This rate is the same for the corresponding period of the past 10 years. There were 23 deaths from bronchitis, 5 from broncho-pneumonia, and 7 were registered as from *pneumonia*.

There was one accidental death.

In 10 instances the cause of death was "uncertified," there having been no medical attendant during the last illness. These cases comprise the deaths of 7 children under 5 years of age (including 6 infants under one year old) and the death of one man aged 61 years.

Eighty-six of the persons whose deaths were registered during the week were under 5 years of age (45 being infants under one year, of whom 12 were under one month old), and 29 were aged 60 years and upwards, including 13 persons aged 70 and upwards, of whom 5 were octogenarians, and 3 (2 males and a female) were stated to have been aged 90, 90, and 91 years respectively.

The Registrar-General points out that the names of causes of death printed above in italics should be avoided whenever possible in Medical Certificates of the Cause of Death.

STATE OF INFECTIOUS DISEASE IN DUBLIN.

(1.) Cases of Infectious Diseases Notified to the Public Health Committee of the Corporation.

Sir Charles A. Cameron, C.B., Medical Superintendent Officer of Health for the City of Dublin, has furnished information regarding the number of cases of infectious diseases in the City of Dublin notified under "The Infectious Diseases (Notification) Act, 1899," as follows: —

Week ending October	11,	1902,	..	280 cases.
,, ,,	18,	,,	..	253 cases.
,, ,,	25,	,,	..	278 cases.
,, November	1,	,,	..	271 cases.

Of the 271 cases notified in the week ended November 1, 17 were erysipelas, 24 enteric fever, 42 scarlatina, 16 diphtheria, 159 measles, 2 "continued fever," one typhus fever, one rubella, one puerperal fever, and 8 varicella.

(2.) Cases of Infectious Disease in Rathmines Urban District.

Mr. Fawcett, Executive Sanitary Officer for Rathmines Urban Council, has furnished information regarding the number of cases of infectious diseases in the Urban District of Rathmines notified under "The Infectious Diseases (Notification) Act, 1889," as follows :—

Week ending	October	11, 1902.	.. ..	8 cases.
,,	,,	18, ,,	.. ..	6 cases.
,,	,,	25, ,,	.. ..	5 cases.
,,	November	1, ,,	.. ..	15 cases.

Of the 15 cases notified in the last week, 3 were enteric fever, 4 were measles, 6 were scarlet fever, one was typhus fever, and one was varicella.

(3.) Cases of Infectious Disease in Pembroke Urban District.

Mr. Manly, Executive Sanitary Officer for Pembroke Urban Council, has furnished information regarding the number of cases of infectious disease in the Urban District of Pembroke notified under "The Infectious Diseases (Notification) Act, 1889," as follows :—

Week ending	October	11, 1902.	.. ..	9 cases.
,,	,,	18, ,,	.. ..	9 cases.
,,	,,	25, ,,	.. ..	10 cases.
,,	November	1, ,,	.. ..	8 cases.

Of the 8 cases notified in the last week, 5 were scarlet fever, one was measles, one was enteric fever, and one was varicella.

(4.) Cases of Infectious Diseases under Treatment in Dublin Hospitals.

During the week ending Saturday, November 1, 48 cases of measles were admitted to hospital, being 22 over the admissions for the preceding week; 29 cases were discharged, there were 5 deaths, and 109 cases remained under treatment at the close of the week.

Twenty cases of enteric fever were admitted to hospital, 19 cases were discharged, and 107 cases remained under treatment at the close of the week.

Forty-two cases of scarlatina were admitted to hospital, 20 cases were discharged, there were 2 deaths, and 139 cases remained under treatment at the close of the week. There were also 27 convalescent cases under treatment at Beneavin, Glasnevin, the Convalescent Home of Cork-street Fever Hospital.

29·840 inches. The mercury rose to 30·410 inches at 9 p.m. of the 23rd, having fallen to 29·180 inches at 9 p.m. of the 15th. The observed range of atmospheric pressure was, therefore, 1·230 inches.

The mean temperature deduced from daily readings of the dry-bulb thermometer at 9 a.m. and 9 p.m. was 50·6°, or 4·3° below the value for September, 1902. The arithmetical mean of the maximal and minimal readings was 51·7°, compared with a thirty years' average of 49·4°. Using the formula, *Mean Temp.* = *Min.* + (*Max.* — *Min.* × ·485), the mean temperature was 51·5°, or 2·3° above the average mean temperature for October, calculated in the same way, in the thirty years, 1871–1900, inclusive (49·2°). On the 12th the thermometer in the screen rose to 61·5°—wind, S.S.W.; on the 17th the temperature fell to 40·3°—wind, W.N.W. The minimum on the grass was 35·3° on the 12th. The thermometer did not sink to 32° in the screen, or even on the ground, in the City.

The rainfall was 3·056 inches, distributed over 23 days—the rainfall and the rainy days were above the average. The average rainfall for October in the thirty-five years, 1866–1900, inclusive, was 2·940 inches, and the average number of rainy days was 18. In 1880 the rainfall in October was very large—7·358 inches on 15 days. In 1875, also, 7·049 inches fell on 26 days. On the other hand, in 1890, only ·639 inch fell on but 11 days; in 1884, only ·834 inch on but 14 days; and in 1868 only ·856 inch on 15 days. In 1901 the October rainfall was 2·396 inches on 21 days.

High winds were noted on 14 days, but attained the force of a gale on only one occasion—the 15th. The atmosphere was more or less foggy in Dublin on the 8th and 11th. The duration of bright sunshine was estimated at only 84·25 hours, compared with 127·25 hours in October, 1900, and 115·25 hours in October, 1901.

The rainfall in Dublin during the ten months ending October 31st amounted to 24·481 inches on 172 days, compared with 12·366 inches on 123 days during the same period in 1887 (the dry year), 27·863 inches on 177 days in 1900, 20·466 inches on 145 days in 1901, and a thirty-five years' average of 22·820 inches on 163 days.

At Knockdolian, Greystones, Co. Wicklow, the rainfall in October amounted to 4·655 inches on 17 days. Of this quantity, ·950 inch fell on the 11th, ·750 inch on the 12th, and ·590 inch on the 10th. From January 1st, 1902, up to October 31st, rain fell at Knock-

Æolian on 140 days to the total amount of 31·811 inches. In 1893 the rainfall in the corresponding ten months was 17·801 inches on 133 days; in 1894, 32·221 inches on 154 days; in 1897, 32·730 inches on 171 days; in 1898, 24·177 inches on 140 days; in 1899, 30·000 inches on 150 days; in 1900, 33·311 inches on 155 days; and in 1901, 28·030 inches on 135 days.

At Cloneevin, Killiney, Co. Dublin, the rainfall in October was 2·760 inches on 20 days, compared with ·710 inch on 14 days in 1893, 6·460 inches on 17 days in 1894, 2·830 inches on 17 days in 1900, 2·520 inches on 21 days in 1901, and a seventeen years' average (1885–1901) of 3·121 inches on 16·1 days. On the 4th, ·77 inch fell. Since January 1, 1902, 26·150 inches of rain have fallen at this station on 159 days.

Dr. Arthur S. Goff reports that at Lynton, Dundrum, Co. Dublin, rain fell on 24 days to the amount of 3·45 inches, compared with 2·40 inches on 21 days in October, 1901. The greatest measurement in 24 hours was ·94 inch on the 10th. The mean temperature in the shade was 50·9°, the range being from 59° on the 24th and 29th to 41° on the 17th, 18th and 19th. The mean temperature of October, 1901, was 50·0°.

Dr. B. H. Steede reports: At the National Hospital for Consumption, Newcastle, Co. Wicklow, the rainfall in October was 3·577 inches on 18 days, compared with 3·175 inches on 13 days in 1897, 4·385 inches on 17 days in 1898, 1·484 inches on 11 days in 1899, 3·551 inches on 14 days in 1900, and 3·200 inches on 21 days in 1901. The heaviest falls in 24 hours were ·710 inch on the 7th, ·541 inch on the 10th, and ·500 inch on the 9th. The highest temperature in the screen was 61·0° on the 24th, the lowest was 40·0° on the 9th. At this Second Order Station the rainfall from January 1 to October 31, inclusive, amounted to 29·742 inches on 154 days, compared with 26·479 inches on 139 days in the corresponding ten months of 1898, 27·643 inches on 140 days in 1899, 28·599 inches on 150 days in 1900, and 24·953 inches on 142 days in 1901.

In the City of Cork, rain fell on 18 days to the amount of 1·30 inches, or 2·03 inches less than the average for October. The greatest day's rainfall was 0·29 inch on the 25th.

At the Ordnance Survey Office, Phœnix Park, the rainfall was 2·732 inches on 23 days, compared with 2·790 inches on 20 days in October, 1901. The heaviest rainfall in 24 hours was ·510 inch on the 10th.

Dr. J. Byrne Power, F.R. Met. Soc., Medical Superintendent

Officer of Health, Kingstown, Co. Dublin, reports that the mean temperature at that health resort was 52·2°, being 0·2° above the average for October during the previous 4 years, the extremes being—highest, 63° on the 29th; lowest, 40° on the 19th. At Bournemouth the mean was 51·6°—highest, 63° on the 29th; lowest, 38° on the 31st. The mean daily range of temperature was 7·8° at Kingstown and 12·5° at Bournemouth. The mean sea temperature at Sandycove bathing place was 54·8°. The mean humidity of the air was 88 per cent. The mean height of the barometer was 29·985 inches. The rainfall amounted to 2·32 inches on 19 days at Kingstown; at Bournemouth, to 1·89 inches on 16 days. The duration of sunshine was 67·5 hours at Kingstown, whereas it was 71·9 hours at the Ordnance Survey Office, Phœnix Park, being 19·9 hours below the shortest duration previously recorded for October, and 49·1 hours below the average at that station during the previous 11 years. It was 92·5 hours at Valentia, 68·5 hours at Parsonstown, 62·9 hours at Southport, and 75·4 hours at Eastbourne.

ALVARENGA PRIZE OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.

The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Senor Alvarenga, and amounting to about One Hundred and Eighty Dollars, will be made on July 14, 1903, provided that an essay deemed by the Committee of Award to be worthy of the Prize shall have been offered. Essays intended for competition may be upon any subject in Medicine, but cannot have been published, and must be received by Thomas R. Neilson, M.D., the Secretary of the College, on or before May 1, 1903. Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author. It is a condition of competition that the successful essay or a copy of it shall remain in possession of the College; other essays will be returned upon application within three months after the award. The Alvarenga Prize for 1902 was not awarded, the Committeee having decided that no essay of sufficiently high standard was submitted in competition.

INDEX

TO THE ONE HUNDRED AND FOURTEENTH VOLUME.

Abdominal cavity, weight of the viscera in the right and left sides of the mesial plane of the, by Dr. T. G. Moorhead, 387.

Abdominal tumour, a peculiar, Mr. M'Ardle on, 81.

Academy of Medicine in Ireland, the Royal, 67, 133, 221, 280, 386, 460.

Acromegaly, pituitary gland in, 219.

Acute ascending paralysis, Dr. O'Carroll on, 168 ; Dr. W. J. Thompson on, 67 ; Dr. Parsons on, 67.

Adenoma of the liver, Dr. Earl on, 460.

Adrenal extract and hæmatemesis, 217.

Africa, Brown's Guide to South, *Rev.*, 66.

Air-passages, use of electro-magnet for the extraction of paramagnetic bodies from the, 79.

Albert, Dr. E., diagnosis of surgical diseases, *Rev.*, 373.

Alvarenga prize of the College of Physicians of Philadelphia, 472.

American Surgical Association, Transactions of the, *Rev.*, 55.

Anæsthetic in general surgery, nitrous oxide and oxygen as, by Mr. Fielden, 189.

Anatomy and Physiology, Section of, in the Royal Academy of Medicine in Ireland, 386.

Anatomy, text-book of, *Rev.*, 349.

Angina cruris, 208.

Antiphlogistine, 320.

Aortic disease, rhythmical oscillation of the head in, 212.

Apomorphin in hysteria, 218.

Apothecaries' Hall in Ireland, 305.

Appendicitis, the blood in, 212.

Army Medical Corps, Royal, 448—and service in India, 66.

Ascending paralysis, acute, Dr. O'Carroll on, 168 ; Dr. W. J. Thompson on, 67 ; Dr. Parsons on, 67.

Atlas of Clinical Medicine, Surgery, and Pathology, *Rev.*, 428.

Babinski's toe phenomenon, 206.

Bacillus enteritidis, continued fever due to, Drs. Craig and A. H. White on, 221, 241.

Bacteriological Researches by the Local Government Board, England, 435.

Bacteriology, *Rev.*, 348.

Bacteriology of pulmonary gangrene, 318.

Ballance, Mr. Charles A., and Dr. Stewart, the healing of nerves, *Rev.*, 105.

Banti's disease, 211, 317.

Belfast, Queen's College, 297.

Bennett, Prof. E. H., unreduced subclavicular dislocation of humerus, 401, 460.

Benson, Mr. A. H., tuberculous tumour of the choroid, 462.

Bergey, Dr. D. H., principles of hygiene, *Rev.*, 102.

Bewley, Dr. H. T., special report on practice of medicine, 204.

Bibliographical notices, 33, 102, 195, 270, 343, 422.

Bigelow, Dr. Horatio R., international system of electro-therapeutics, *Rev.*, 382.

Blayney, Mr. Alexander, perforated gastric ulcer, 133, 229.

Blue urine, 210.

Borne, M. G., and Dr. Petit, manuel pratique de bactériologie, *Rev.*, 278.

Boston City Hospital Medical and Surgical Reports, *Rev.*, 44.

Bovine tuberculosis, 174.

Boyce, Rupert, Thompson-Yates laboratories' report, *Rev.*, 343.

Boyd, Dr. Francis D., Gibson and Russell's physical diagnosis, *Rev.*, 65

Breast, papilloma of the, Prof. Pearson on, 226.

Broca, A., surgical anatomy of the middle ear, *Rev.*, 371.

Brown, A. Samler, and G. George, Guide to South Africa, *Rev.*, 66.

Brunton, Sir Lauder, disorders of assimilation, *Rev.*, 117.
Burchard, Dr. F. F., Mr. Watson Cheyne and, manual of surgical treatment, *Rev.*, 279.
Burroughs, Wellcome & Co., Messrs., new preparations, 160, 240.

Cameron, Sir C. A., inspection of dairy sheds, 144; controversial points in Preventive Medicine, 161; Report on Public Health, 433.
Carless, Mr. Albert, and Mr. Rose, Manual of Surgery, *Rev.*, 430.
Carton, Dr. P. C., clinical report of the Rotunda Hospital, 252.
Catechism series: bacteriology, *Rev.*, 348.
Cavernoma of the liver, Dr. Earl on, 461.
Chance, Mr. Arthur, choledochotomy, 250.
Chancre of the tonsil, 79.
Cheyne, Mr. W. Watson, and Dr. Burchard, manual of surgical treatment, *Rev.*, 279.
Child, stomach in the, Professor Cunningham on, 386.
Choledochotomy, by Mr. A. Chance, 250.
Choroid, tuberculous tumour of the, Mr. Benson and Dr. Earl on, 462.
Claudication, intermittent, 208.
Cleft palate and its relation to speech, 80.
Clinical report of the Rotunda Hospital, by Drs. Purefoy, P. C. Carton, and W. G. Fitzgerald, 252.
Coleman, Dr. J. B., sporadic cretinism, 136.
Colleges of Physicians and Surgeons, Ireland, Royal, 298.
College of Physicians of Ireland, the Royal, 400.
Colles's fracture, Dr. Knott on, 18, 87.
Cologan, Rev. W. H., and Sir Francis Cruise, Temperance Reader, *Rev.*, 431.
Combined drains, 440.
Consumption, the sanatorium treatment of, 400.
Contagiousness of pneumonia, 463.
Continued fever caused by Gärtner's bacillus, by Drs. Craig and A. H. White, 221, 241, 244.
Controversial points in Preventive Medicine, by Sir C. A. Cameron, 161.
Cork, Queen's College, 297.
Corlett, Dr. Wm. Thomas, the acute infectious exanthemata, *Rev.*, 59.
Cotton, Dr. Frederick J., and Dr. Scudder, treatment of fractures, *Rev.*, 369.
Cough, menthol for, 218.
Cows, infectivity of the milk of, Dr. McWeeney on, 142.
Cragin, Dr. E. B., and Dr. Mathews, essentials of gynæcology, *Rev.*, 127.
Craig, Dr. James, continued fever due to Gärtner's Bacillus enteritidis, 221, 241.
Cretinism, sporadic, Dr. Coleman on, 136.
Croly, Mr. H. G., ligation of external iliac artery, 134.
Crothers, Dr. T. D., morphinism and narcomaniacs, *Rev.*, 354.
Cruise, Sir Francis R., and Rev. W. H. Cologan, The Temperance Reader, *Rev.*, 431.
Cunningham, Dr. D. J., text-book of anatomy, *Rev.*, 349; the stomach in the child, 386.

Da Costa, Dr. John C., clinical hematology, *Rev.*, 112; Zuckerkandl's atlas and epitome of operative surgery, *Rev.*, 374.
Dairies, inspection of, 442.
Dairy sheds, inspection of, Sir C. A. Cameron on, 144, 442.
Dawson, Dr. W. R., the year's work at Farnham House, 6.
Dental education and examination in Ireland, 307.
Dental Hospital of Ireland, 307.
Dermatological Society of Great Britain and Ireland, Transactions of the, *Rev.*, 378.
Diabetes insipidus treated by hypnotic suggestion, Dr. O'Brien on, 321.
Diagnosis, errors in, Dr. Alfred Penny on, 410.
Digestion, physiology of, Prof. W. H. Thompson on, 388.
Digestive ferments, use and abuse of, 215
Disinfection by formaldehyde, 444.
Dislocation of head of humerus, subclavicular, Dr. Bennett on, 401, 460.
Down District Asylum Report, *Rev.*, 45.
Doyle, Dr. J. P., report on case of diseased vertebræ, 221.
Drains, combined, 440.
Dublin, University of, regulations, 288.
Durham, Mr. H. E., Report of the Yellow Fever Expedition to Parà, *Rev.*, 422.

Ear complications and sequelæ of influenza, 390.
Earl, Dr. H., adenoma of the liver, 460; cavernoma of the liver, 461; tuberculous tumour of the choroid, 462.
Edinburgh Medical Journal, *Rev.*, 373.
Edinburgh, Royal College of Surgeons, 158.
Education and examinations in Ireland, medical, 285.
Egyptian Medical Congress, 421.
Electro-magnet, use of the, for the extraction of paramagnetic bodies from the air-passages, 79.
Enteric fever, prophylaxis of, by inoculation, Lieut. Stevenson on, 405.
Errors in diagnosis, Dr. Alfred Penny on, 410.
Evolution, sex and its relation to, by Mr. Geoffrey Harvey, 329.
Excision of shoulder, by Mr. D. Kennedy 226.

Fagge, Dr. Charles Hilton, text-book of medicine, *Rev.*, 269.
Farnham House, notes on the year's work at, by Dr. Dawson, 6.
Femur, sarcomatous osteo-chondroma of, Professor Pearson on, 224.
Ferguson, Dr. James Haig, and Dr. Haultain, handbook of obstetric nursing, *Rev.*, 128.
Fever, continued, due to Bacillus enteritidis, Drs. Craig and White on, 221, 241.
Fever, enteric, prophylaxis of, by inoculation, Lieut. Stevenson on, 405.
Fibromyoma, Dr. Alfred Smith's case of, 281.
Fielden, Mr. Victor, nitrous oxide and oxygen as an anæsthetic in general surgery, 189.
Finsen, Professor Niels R., photo-therapy, *Rev.*, 276.
Fitzgerald, Dr. W. G., clinical report of the Rotunda Hospital, 252.
Formaldehyde, disinfection by, 444.
Fox, Dr. George Henry, photographic atlas of diseases of the skin, *Rev.*, 50.
Fracture, Colles's, Dr. Knott on, 18, 87.
Frank, Dr. Robert J., Albert's diagnosis of surgical diseases, *Rev.*, 373.
Freyer, Dr. P. J., clinical lectures on strieture of the urethra and enlargement of the prostate, *Rev.*, 272.
Friedrichshall water, 320.

Galbraith, Dr. Anna M., the four epochs of woman's life, *Rev.*, 56.
Gall-bladder, epithelial tumour of, Dr. J. A. Scott on, 462.
Galway, Queen's College, 297.
Gangrene, bacteriology of pulmonary, 318.
Gärtner's bacillus enteritidis as a cause of continued fever, by Dr. Craig and Dr. A. H. White, 221, 241.
Gastric ulcer, perforated, Mr. A. Blayney on, 133, 229; Mr. Tobin on, 136.
General Index to the Transactions of the Pathological Society of London, *Rev.*, 53.
General Medical Council, regulations, 286.
Gibson and Russell's physical diagnosis, *Rev.*, 65.
Gibson, Dr. G. A., the Edinburgh Medical Journal, *Rev.*, 373.
Glaister, Dr. John, text-book of medical jurisprudence, *Rev.*, 375.
Gleason, Dr. E. B., essentials of diseases of the nose and throat, *Rev.*, 52.
Goldscheider, Dr. A., and Dr. Jacob, Handbuch der physikalischen Therapie, *Rev.*, 110, 346.
Goodhart, Dr. James F., and Dr. Still, diseases of children, *Rev.*, 360.
Gould, Dr. G. M., Saunders' year-book of medicine and surgery, *Rev.*, 203, 277; pocket cyclopedia, *Rev.*, 278.
Gould, Mr. A. Pearce, international text-book of surgery, *Rev.*, 383.
Gradle, Dr. Henry, diseases of the nose, pharynx and ear, *Rev.*, 362.
Green and blue urine, 210.
Guide to South Africa, Brown's, *Rev.*, 66.

Hadley, Dr. Wilfred J., nursing and sick-room cookery, *Rev.*, 125.
Hæmatemesis, adrenal extract and, 217.
Handbuch der physikalischen Therapie, *Rev.*, 110, 346.
Hardesty, Dr. Irving, neurological technique, *Rev.*, 121.
Harrington, Dr. Charles, manual of practical hygiene, *Rev.*, 103.
Harvey, Mr. Geoffrey, sex and its relation to evolution, 329.
Haultain, Dr. Francis W. N., and Dr. Ferguson, handbook of obstetric nursing, *Rev.*, 128.
Hayden, Dr. James R., venereal diseases, *Rev.*, 122.
Hayward, Dr. John W., protoplasm, *Rev.*, 348.
Health, Public, Report on, by Sir C. A. Cameron, 433.

Brunton, Sir Lauder, disorders of assimilation, *Rev.*, 117.
Burchard, Dr. F. F., Mr. Watson Cheyne and, manual of surgical treatment, *Rev.*, 279.
Burroughs, Wellcome & Co., Messrs., new preparations, 160, 240.

Cameron, Sir C. A., inspection of dairy sheds, 144; controversial points in Preventive Medicine, 161; Report on Public Health, 433.
Carless, Mr. Albert, and Mr. Rose, Manual of Surgery, *Rev.*, 430.
Carton, Dr. P. C., clinical report of the Rotunda Hospital, 252.
Catechism series: bacteriology, *Rev.*, 348.
Cavernoma of the liver, Dr. Earl on, 461.
Chance, Mr. Arthur, choledochotomy, 250.
Chancre of the tonsil, 79.
Cheyne, Mr. W. Watson, and Dr. Burchard, manual of surgical treatment, *Rev.*, 279.
Child, stomach in the, Professor Cunningham on, 386.
Choledochotomy, by Mr. A. Chance, 250.
Choroid, tuberculous tumour of the, Mr. Benson and Dr. Earl on, 462.
Claudication, intermittent, 208.
Cleft palate and its relation to speech, 80.
Clinical report of the Rotunda Hospital, by Drs. Purefoy, P. C. Carton, and W. G. Fitzgerald, 252.
Coleman, Dr. J. B., sporadic cretinism, 136.
Colleges of Physicians and Surgeons, Ireland, Royal, 298.
College of Physicians of Ireland, the Royal, 400.
Colles's fracture, Dr. Knott on, 18, 87.
Cologan, Rev. W. H., and Sir Francis Cruise, Temperance Reader, *Rev.*, 431.
Combined drains, 440.
Consumption, the sanatorium treatment of, 400.
Contagiousness of pneumonia, 463.
Continued fever caused by Gärtner's bacillus, by Drs. Craig and A. H. White, 221, 241, 244.
Controversial points in Preventive Medicine, by Sir C. A. Cameron, 161.
Cork, Queen's College, 297.
Corlett, Dr. Wm. Thomas, the acute infectious exanthemata, *Rev.*, 59.
Cotton, Dr. Frederick J., and Dr. Scudder, treatment of fractures, *Rev.*, 369.
Cough, menthol for, 218.
Cows, infectivity of the milk of, Dr. McWeeney on, 142.
Cragin, Dr. E. B., and Dr. Mathews, essentials of gynæcology, *Rev.*, 127.
Craig, Dr. James, continued fever due to Gärtner's Bacillus enteritidis, 221, 241.
Cretinism, sporadic, Dr. Coleman on, 136.
Croly, Mr. H. G., ligation of external iliac artery, 134.
Crothers, Dr. T. D., morphinism and narcomaniaes, *Rev.*, 354.
Cruise, Sir Francis R., and Rev. W. H. Cologan, The Temperance Reader, *Rev.*, 431.
Cunningham, Dr. D. J., text-book of anatomy, *Rev.*, 349; the stomach in the child, 386.

Da Costa, Dr. John C., clinical hematology, *Rev.*, 112; Zuckerkandl's atlas and epitome of operative surgery, *Rev.*, 374.
Dairies, inspection of, 442.
Dairy sheds, inspection of, Sir C. A. Cameron on, 144, 442.
Dawson, Dr. W. R., the year's work at Farnham House, 6.
Dental education and examination in Ireland, 397.
Dental Hospital of Ireland, 307.
Dermatological Society of Great Britain and Ireland, Transactions of the, *Rev.*, 378.
Diabetes insipidus treated by hypnotic suggestion, Dr. O'Brien on, 321.
Diagnosis, errors in, Dr. Alfred Penny on, 410.
Digestion, physiology of, Prof. W. H. Thompson on, 388.
Digestive ferments, use and abuse of, 215
Disinfection by formaldehyde, 444.
Dislocation of head of humerus, subclavicular, Dr. Bennett on, 401, 460.
Down District Asylum Report, *Rev.*, 45.
Doyle, Dr. J. P., report on case of diseased vertebræ, 221.
Drains, combined, 440.
Dublin, University of, regulations, 288.
Durham, Mr. H. E., Report of the Yellow Fever Expedition to Parà, *Rev.*, 422.

Ear complications and sequelæ of influenza, 390.
Earl, Dr. H., adenoma of the liver, 460; cavernoma of the liver, 461; tuberculous tumour of the choroid, 462.
Edinburgh Medical Journal, *Rev.*, 373.
Edinburgh, Royal College of Surgeons, 158.
Education and examinations in Ireland, medical, 285.
Egyptian Medical Congress, 421.
Electro-magnet, use of the, for the extraction of paramagnetic bodies from the air-passages, 79.
Enteric fever, prophylaxis of, by inoculation, Lieut. Stevenson on, 405.
Errors in diagnosis, Dr. Alfred Penny on, 410.
Evolution, sex and its relation to, by Mr. Geoffrey Harvey, 329.
Excision of shoulder, by Mr. D. Kennedy 226.

Fagge, Dr. Charles Hilton, text-book of medicine, *Rev.*, 269.
Farnham House, notes on the year's work at, by Dr. Dawson, 6.
Femur, sarcomatous osteo-chondroma of, Professor Pearson on, 224.
Ferguson, Dr. James Haig, and Dr. Haultain, handbook of obstetric nursing, *Rev.*, 128.
Fever, continued, due to Bacillus enteritidis, Drs. Craig and White on, 221, 241.
Fever, enteric, prophylaxis of, by inoculation, Lieut. Stevenson on, 405.
Fibromyoma, Dr. Alfred Smith's case of, 281.
Fielden, Mr. Victor, nitrous oxide and oxygen as an anæsthetic in general surgery, 189.
Finsen, Professor Niels R., phototherapy, *Rev.*, 276.
Fitzgerald, Dr. W. G., clinical report of the Rotunda Hospital, 252.
Formaldehyde, disinfection by, 444.
Fox, Dr. George Henry, photographic atlas of diseases of the skin, *Rev.*, 50.
Fracture, Colles's, Dr. Knott on, 18, 87.
Frank, Dr. Robert J., Albert's diagnosis of surgical diseases, *Rev.*, 373.
Freyer, Dr. P. J., clinical lectures on stricture of the urethra and enlargement of the prostate, *Rev.*, 272.
Friedrichshall water, 320.

Galbraith, Dr. Anna M., the four epochs of woman's life, *Rev.*, 56.
Gall-bladder, epithelial tumour of, Dr. J. A. Scott on, 462.
Galway, Queen's College, 297.
Gangrene, bacteriology of pulmonary, 318.
Gärtner's bacillus enteritidis as a cause of continued fever, by Dr. Craig and Dr. A. H. White, 221, 241.
Gastric ulcer, perforated, Mr. A. Blayney on, 133, 229; Mr. Tobin on, 136.
General Index to the Transactions of the Pathological Society of London, *Rev.*, 53.
General Medical Council, regulations, 286.
Gibson and Russell's physical diagnosis, *Rev.*, 65.
Gibson, Dr. G. A., the Edinburgh Medical Journal, *Rev.*, 373.
Glaister, Dr. John, text-book of medical jurisprudence, *Rev.*, 375.
Gleason, Dr. E. B., essentials of diseases of the nose and throat, *Rev.*, 52.
Goldscheider, Dr. A., and Dr. Jacob, Handbuch der physikalischen Therapie, *Rev.*, 110, 346.
Goodhart, Dr. James F., and Dr. Still, diseases of children, *Rev.*, 360.
Gould, Dr. G. M., Saunders' year-book of medicine and surgery, *Rev.*, 203, 277; pocket cyclopedia, *Rev.*, 278.
Gould, Mr. A. Pearce, international text-book of surgery, *Rev.*, 383.
Gradle, Dr. Henry, diseases of the nose, pharynx and ear, *Rev.*, 362.
Green and blue urine, 210.
Guide to South Africa, Brown's, *Rev.*, 66.

Hadley, Dr. Wilfred J., nursing and sick-room cookery, *Rev.*, 125.
Hæmatemesis, adrenal extract and, 217.
Handbuch der physikalischen Therapie, *Rev.*, 110, 346.
Hardesty, Dr. Irving, neurological technique, *Rev.*, 121.
Harrington, Dr. Charles, manual of practical hygiene, *Rev.*, 103.
Harvey, Mr. Geoffrey, sex and its relation to evolution, 329.
Haultain, Dr. Francis W. N., and Dr. Ferguson, handbook of obstetric nursing, *Rev.*, 128.
Hayden, Dr. James R., venereal diseases, *Rev.*, 122.
Hayward, Dr. John W., protoplasm, *Rev.*, 348.
Health, Public, Report on, by Sir C. A. Cameron, 433.

Heath, Mr. Christopher, clinical lectures on surgical subjects, *Rev.*, 271.
Hemmeter, Dr. John C., diseases of the stomach, *Rev.*, 124; diseases of the intestines, *Rev.*, 363.
Hernia in infants, radical cure of, Mr. Kennedy on, 133.
Heroin, therapeutic use of, 216.
Hewlett, Dr. Richard T., Manual of Bacteriology, *Rev.*, 424.
Horridge, Mr. Frank, dynamic aspects of nutrition and heredity, *Rev.*, 365.
Horne, Dr. A. J., vaginal hysterectomy, 281.
Hospital—Boston City, medical and surgical reports of the, *Rev.*, 44; clinical report of the Rotunda, 252.
Howard, Lt.-Col. Frank, handbook of the medical organisations of the foreign armies, *Rev.*, 33.
How, Mr. Frederick Douglas, a Hero of Donegal, *Rev.*, 48.
Humerus, subclavicular dislocation of, Dr. Bennett on, 401, 460.
Hutchison, Dr. R., and Mr. H. Rainey, clinical methods, *Rev.*, 277.
Hydrargyri succinimidum "tabloid," 240.
Hypertrophy, senile, of the prostate, Mr. Tobin on, 184.
Hypnotic suggestion in diabetes insipidus, by Dr. J. R. O'Brien, 321.
Hysterectomy, vaginal, Dr. A. J. Horne on, 281.
Hysteria, apomorphin in, 218.

Inaugural Address, by Mr. L. H. Ormsby, 445.
India, the Royal Army Medical Corps and service in, 66.
Indian Medical Service, 284.
Infected shell-fish, 438.
Influenza, ear complications of, 390.
Inoculation for prophylaxis of enteric fever, Lieut. Stevenson on, 405.
Institute, the Sanitary, 159.
Intermittent claudication, 208.
International Society of Surgery, 220.
Intestinal obstruction caused by utero-ovarian trouble, Mr. M'Ardle on, 26, 181.
Inventions, Scientific, New Preparations and, 160, 240, 318.
Ireland—Apothecaries' Hall in, 305; dental education and examinations in, 307; medical education and examinations in, 285; Queen's Nurses in, 78; Royal Academy of Medicine in, 67, 133, 221, 280, 386, 460; Royal College of Physicians of, 400; Royal Colleges of Physicians and Surgeons, 298; Royal University of, regulations, 293.
Irish Poor-Law Medical appointments, 454.

Jackson, Dr. George Thomas, diseases of the skin, *Rev.*, 380.
Jacob, Dr. Paul, and Dr. Goldscheider, Handbuch der physikalischen Therapie, *Rev.*, 110, 346.
Japan, Sanitation and Vital Statistics in, 433.
Jellett, Dr. Henry, short practice of midwifery for nurses, *Rev.*, 127.
Jewett, Dr. Charles, essentials of obstetrics, *Rev.*, 126.
Johnston, Mr. G. Jameson, gunshot wound of the femur, 226.
Jones, Dr. H. Macnaughton, diseases of the ear and naso-pharynx, *Rev.*, 199.
Jones, Dr. L. Vernon, gonorrhœal arthritis, *Rev.*, 358.

Keay, Dr. J. H., the medical treatment of gall-stones, *Rev.*, 276.
Kennedy, Mr. D., radical cure of hernia in infants, 133; excision of shoulder, 226.
Kenwood, Mr. H., and Dr. Parkes, hygiene and public health, *Rev.*, 103, 372.
Khartoum, scientific research at, 459.
King, Dr. A. F. A., a manual of obstetrics, *Rev.*, 51.
King's College Hospital Reports, *Rev.*, 379.
Kinkead, Professor R. J., pan-hysterectomy for uterine myoma, 84.
Knott, Dr. J. F., Colles's fracture 18, 87.

Labour, first stage of, Dr. E. Hastings Tweedy on, 281.
Landry's paralysis, 1, 67, 68, 69, 70.
Laryngology, report on, by Dr. S. H. Law, 130.
Latent pneumonia, 207.
Latham, Dr. Arthur, von Limbeck's clinical pathology of the blood, *Rev.*, 64.
Law, Dr. S. Horace, report on rhinology and laryngology, 129.
Lead poisoning, Dr. Robert V. M'Vittie on, 141.
Lemonade, nutritive, for febrile and wasting diseases, 399.
Lendon, Dr. Alfred A., hydatid disease of the lungs, *Rev.*, 356.

von Limbeck, Professor R. R., the clinical pathology of the blood, *Rev.*, 64.
Lentaigne, Mr. John, tuberculous disease of the ankle-joint, 226; ossifying chondro-sarcoma of leg, 226.
Ligation of external iliac artery, Mr. H. G. Croly on, 134.
Literary notes, 317, 463.
Liver, adenoma of, 460; cavernoma of, 461.
Liverpool School of Tropical Medicine Expedition to Parà, 422.
Lockwood, Dr. George Roe, manual of the practice of medicine, *Rev.*, 57.

Macan, Dr. A. V., President of the Royal College of Physicians of Ireland, 400.
M'Ardle, Mr. J. S., influence of utero-ovarian trouble in producing intestinal obstruction, 26, 181; a peculiar abdominal tumour, 81.
Mackenzie, Dr. James, study of the pulse, *Rev.*, 195.
M'Vittie, Dr. R., case of lead-poisoning, 141.
McWeeney, Dr. E. J., infectivity of the milk of cows, 142.
Mann, Dr. J. Dixon, forensic medicine and toxicology, *Rev.*, 123.
Marsh, Mr. Howard, clinical essays and lectures, *Rev.*, 425.
Massey, Dr. G. Belton, international system of electro-therapeutics, *Rev.*, 382.
Masterman, Dr. Arthur T., elementary text-book of zoology, *Rev.*, 46.
Mathews, Dr. Frank C., Cragin's essentials of gynæcology, *Rev.*, 127.
Medical and surgical report of the Presbyterian Hospital, New York, *Rev.*, 360.
Medical and surgical reports of the Boston City Hospital, *Rev.*, 44.
Medical Annual, the, *Rev.*, 54.
Medical Corps, Royal Army, 66, 448.
Medical education and examinations in Ireland, 285.
Medical Miscellany, 67, 133, 221, 280, 386, 445.
Medical Phonographers, Society of, 158.
Medical Service, Indian, 284.
Medicine in Ireland, Royal Academy of, 67, 133, 221, 280, 386, 460.
Medicine, Section of, in the Royal Academy of Medicine in Ireland, 67, 136, 460.
Medicine, Section of State, in the Royal Academy of Medicine in Ireland, 141.
Medicine, Special Report on Practice of, by Dr. Bewley, 204.
Menthol as a palliative of cough, 218.
Mercier, Mr. Charles, text-book of insanity, *Rev.*, 366.
Merck, E., annual report on the year 1901, *Rev.*, 381; Index, *Rev.*, 427.
Meteorological notes, 75, 155, 236, 313, 396, 469.
Micro-organisms, the *rôle* of, 162.
Milk of cows, infectivity of the, Dr. McWeeney on, 142.
Mitral stenosis, pulmonary incompetence in, 204.
Moll, Dr. Albert, Christian science, medicine and occultism, *Rev.*, 202.
Montreal, Royal Victoria Hospital, studies from, *Rev.*, 61.
Moore, Sir John W., sanitary and meteorological notes, 71, 146, 231, 308, 391, 464.
Moorhead, Dr. T. G., weight of the viscera on the right and left sides of the mesial plane of the abdominal cavity, 387.
Mouth-washes and the integrity of the teeth, by Mr. W. H. Trick, 417.
Muirhead, Dr. Claud, causes of death among the assured in the Scottish Widows' Fund and Life Assurance Society, *Rev.*, 40.
Musset's sign, 212.
Myoma, pan-hysterectomy for uterine, Dr. Kinkead on, 84.

Nachbar, Dr. John, von Limbeck's clinical pathology of the blood, *Rev.*, 64.
New clothes, a vehicle of disease, 179.
New Preparations and Scientific Inventions, 160, 240, 318.
New South Wales, the plague in, 440.
New Sydenham Society's Atlas, *Rev.*, 428.
Nitrous oxide and oxygen as an anæsthetic in general surgery, Mr. Fielden on, 189.
Nolan, Dr. M. J., report of the Down District Asylum, *Rev.*, 45.
Northrup, Dr. William P., Nothnagel's encyclopædia of practical medicine, *Rev.*, 273.
Nothnagel's Encyclopædia of Practical Medicine, *Rev.*, 273.
Nurses in Ireland, Queen's, 78.
Nursing, works on, *Rev.*, 125, 127, 128.
Nutritive lemonade for febrile and wasting diseases, 399.

O'Brien, Dr. John R., diabetes insipidus, hypnotic suggestion in, 321.
Obstetrics, Section of, in the Royal Academy of Medicine in Ireland, 280.
Obstruction, intestinal, utero-ovarian trouble producing, Mr. J. S. M'Ardle on, 26, 181.
O'Carroll, Dr. Joseph, acute ascending paralysis, 1.
Odol, 318, 419.
Operative treatment of deviated septum, 342.
Original communications, 1, 81, 161, 241, 321, 401.
Ormsby, Mr. L. H., Presidential Inaugural Address, 445.
Orr, Dr. John, handbook of public health, *Rev.*, 105.
Oscillation of the head in aortic disease, 212.
Osteo-chondroma, sarcomatous, of femur, Dr. Pearson on, 224.
Oxalates in the urine, 214.

Paget, Mr. Stephen, selected essays and addresses by Sir James Paget, *Rev.*, 201.
Palate, cleft, and its relation to speech, 80.
Pan-hysterectomy for uterine myoma, Dr. Kinkead on, 84.
Papilloma of the breast, Professor Pearson on, 226.
Parà, Yellow Fever Expedition to, 422.
Paralysis, acute ascending, Dr. Joseph O'Carroll on, 1, 68; Dr. W. J. Thompson on, 67; Dr. Parsons on, 67.
Park, Dr. Roswell, treatise on surgery, by American authors, *Rev.*, 58.
Parkes, Dr. Louis, and Mr. Kenwood, hygiene and public health, *Rev.*, 103, 372.
Parsons, Dr. Alfred R., acute ascending paralysis, 67.
Pathological Society of London, General Index to the Transactions of the, *Rev.*, 53.
Pathology, Section of, in the Royal Academy of Medicine in Ireland, 221, 460.
Pearson, Professor C. Y., sarcomatous osteo-chondroma of femur, 224; papilloma of the breast, 226.
Pennsylvania, University of, contributions in clinical medicine, *Rev.*, 109.
Penny, Dr. Alfred, errors in diagnosis, 410.
Pepper, William, laboratory of clinical medicine, contributions from the, *Rev.*, 109.
Periscope, 79, 159, 317, 400.
Petit, Dr., manuel pratique de bactériologie, *Rev.*, 278.
Philadelphia, Alvarenga prize of the College of Physicians of, 472.
Phonographers, Society of Medical, 158.
Physicians and Surgeons, Royal Colleges of, Ireland, 298.
Physicians of Ireland, Royal College of, 400.
Physiology, Anatomy and, Section of, in the Royal Academy of Medicine in Ireland, 386.
Physiology of digestion, Professor W. H. Thompson on, 388.
Pituitary gland in acromegaly, 219.
Plague in New South Wales, 440.
Pneumonia—latent, 207; contagiousness of, 463.
Pneumonia or pleurisy, severe abdominal symptoms ushering in, 316.
Poor-Law Medical appointments, Irish, 454.
Poore, Dr. George Vivian, the earth in relation to contagia, *Rev.*, 119.
Potts, Dr. Charles S., nervous and mental diseases, *Rev.*, 49.
Practice of Medicine, special report by Dr. Bewley, 204.
Preparations, New, 160, 240, 318.
Presbyterian Hospital, New York, report of the, *Rev.*, 360.
Preventive Medicine, controversial points in, Sir C. A. Cameron on, 161.
Price-Brown, Mr. J., diseases of the nose and throat, *Rev.*, 52.
Prophylactics, the State should provide, 169.
Prophylaxis of enteric fever by inoculation, Lieut. Stevenson on, 405.
Prostatectomy, suprapubic, Dr. E. H. Taylor on, 323.
Prostate, treatment of senile hypertrophy of the, Mr. R. F. Tobin on, 184.
Public Health—Diploma in, 292, 295, 304; works on, *Rev.*, 102; Report on, by Sir C. A. Cameron, 433.
Pulmonary gangrene, bacteriology of, 318.
Pulmonary incompetence in mitral stenosis, 204.
Purefoy, Dr. R. D., clinical report of the Rotunda Hospital, 252.
Pye-Smith, Dr. Philip H., Hilton Fagge's text-book of medicine, *Rev.*, 269.
Pyle, Dr. Walter L., Dr. Gould and, pocket cyclopedia of medicine and surgery, 278.
Pyosalpinx, tuberculous, Dr. Alfred Smith's cases of, 280.

Queen's Colleges, regulations of the, 297.
Queen's nurses in Ireland, 78.

Radius, fracture of the lower end of the, Dr. Knott on, 18, 87.
Rainey, Mr. H., Dr. R. Hutchison and, clinical methods, *Rev.*, 277.
Raymond, Dr. Joseph Howard, human physiology, *Rev.*, 63.
Rebman, Mr. F. J., Moll's Christian science, *Rev.*, 202.
Reports, special—on Rhinology and Laryngology, by Dr. Horace Law 129; Practice of Medicine, by Dr. H. T. Bewley, 204; Public Health, by Sir C. A. Cameron, 433.
Reviews and bibliographical notices, 33, 102, 195, 270, 343, 422.
Rhinology, report on, by Dr. S. H. Law, 129.
Richer, Dr. Paul, l'art et la médecine, *Rev.*, 51; introduction à l'étude de la figure humaine, *Rev.*, 200.
Rose, Mr. William, and Mr. A. Carless, Manual of Surgery, *Rev.*, 430.
Rotunda Hospital, clinical report of the, by Drs. Purefoy, Carton, and W. G. FitzGerald, 252.
Royal Academy of Medicine in Ireland, 67, 133, 221, 280, 386, 460.
Royal Army Medical Corps, 448—and service in India, 66.
Royal College of Physicians of Ireland, 400.
Royal College of Surgeons, Edinburgh, 158.
Royal Colleges of Physicians and Surgeons, Ireland, 298.
Royal University of Ireland, regulations, 293.
Ruata, Dr. C., pulmonary tuberculosis, *Rev.*, 276.

St. Thomas's Hospital reports, *Rev.*, 380.
Sanitary and meteorological notes, 71, 146, 231, 308, 391, 464.
Sanitary Institute, 159.
Sanitary Science, Diploma in, 292, 304.
Sarcomatous osteo-chondroma of femur, Professor Pearson on, 224.
Saundby, Dr. Robert, medical ethics, *Rev.*, 377.
Saunders' year-book of medicine and surgery, *Rev.*, 203, 277.
Schiarri, case of Banti's disease, 317.
Scientific Inventions, New Preparations and, 160, 240, 318.
Scientific research at Khartoum, 459.
Scott, Dr. J. A., epithelial tumour of the gall-bladder, 462.
Scottish Widows' Fund and Life Assurance Company, causes of death in, *Rev.*, 40.
Scudder, Dr. Charles Locke, and Dr. Cotton, treatment of fractures, *Rev.*, 369.
Senile hypertrophy of the prostate, Mr. R. F. Tobin on, 184.
Septum, treatment of deviated, 342.
Sequeira, Dr. J. H., Finsen's phototherapy, *Rev.*, 276.
Sewers, ventilation of, 439.
Sex, and its relation to evolution, by Mr. Geoffrey Harvey, 329.
Shellfish and zymotic disease, 177, 438.
Sherrington, C. E., Thompson-Yates laboratories' report, *Rev.*, 343.
Shirres, Mr. David A., studies from the Royal Victoria Hospital, Montreal, *Rev.*, 61.
Smith, Dr. Alfred, tuberculous pyosalpinx, 280; fibromyoma, 281.
Smyth, Dr. William, a hero of Donegal, *Rev.*, 48.
Society of Medical Phonographers, 158.
Soil a factor in the causation of typhoid fever, 176.
Special reports—Rhinology and Laryngology, by Dr. Horace Law, 129; Practice of Medicine, by Dr. H. T. Bewley, 204; Public Health, by Sir C. A. Cameron, 433.
State Medicine, Diploma in, 292, 295, 304.
State Medicine, Section of, in the Royal Academy of Medicine in Ireland, 141.
Stengel, Dr. Alfred, Nothnagel's Encyclopædia of Practical Medicine, *Rev.*, 273.
Stevenson, Lieut. Walter C., prophylaxis of enteric fever by inoculation, 405.
Stewart, Dr. Purves, and Mr. Ballance, the healing of nerves, *Rev.*, 105.
Still, Dr. George F., and Dr. Goodhart, diseases of children, *Rev.*, 360.
Stirling, Dr. William, outlines of practical physiology, *Rev.*, 198.
Stomach in a child, Dr. Cunningham on the, 386.
Stomach, syphilitic tumour of the, 240.
Subclavicular dislocation of humerus, Dr. Bennett on, 401, 460.
Suggestion, hypnotic, in diabetes insipidus, 321.
Sulphocarbolic acid, salts of, 219.
Suprapubic prostatectomy, Dr. E. H. Taylor on, 323.
Surgeons, Royal College of—Edinburgh, 158; Ireland, 298.

Surgery, an international society of, 220.
Surgery, Section of, in the Royal Academy of Medicine in Ireland, 133, 226.
Surgical Association, transactions of the American, *Rev.*, 55.
Syphilitic tumour of the stomach, 240.

Tabloid—urea, 160; sodium cacodylate, 160; lithium citrate and sodium sulphate, 160; hypodermic hydrargyri succinimidum, 240.
Taylor, Dr. E. H., suprapubic prostatectomy, 323.
Taylor, Mr. W., prostate removed by suprapubic method, 226.
Teeth, mouth-washes, and the integrity of the, by Mr. W. H. Trick, 417.
Telegraphy, wireless, in medicine, 220.
Thompson, Dr. W. H., physiology of digestion, 388.
Thompson, Dr. W. J., acute ascending paralysis, 67.
Thompson-Yates laboratories' report, *Rev.*, 343.
Thornton, Dr. E. Q., dose-book and manual of prescription writing, *Rev.*, 54.
Tobin, Mr. R. F., perforated gastric ulcer, 136; treatment of senile hypertrophy of the prostate, 184.
Tonsil, chancre of the, 79.
Transactions—of the Pathological Society of London, General Index to the, *Rev.*, 53; American Surgical Association, *Rev.*, 55; Dermatological Society of Great Britain and Ireland, *Rev.*, 378.
Trick, Mr. W. H., mouth-washes and the integrity of the teeth, 417.
Tuberculosis, 170.
Tuberculous disease of the ankle-joint, by Mr. Lentaigne, 226.
Tuberculous pyosalpinx, Dr. Alfred Smith's cases of, 280.
Tweedy, Dr. E. Hastings, on the first stage of labour, 281.
Typhoid fever, soil a factor in the causation of, 176.

Ulcer, perforated gastric, Mr. A. Blayney on, 133, 229; Mr. R. F Tobin on, 136.
Underwood, Mr. Arthur S., Aids to Dental Anatomy and Physiology, *Rev.*, 425.
University—of Pennsylvania, contributions in clinical medicine from, *Rev.*, 109; of Dublin, regulations, 288; Royal, of Ireland, regulations, 293.
Unreduced subclavicular dislocation of humerus, Dr. Bennett on, 401.
Urine—green and blue, 210; oxalates in the, 214.
Uterine myoma, pan-hysterectomy for, Dr. Kinkead on, 84.
Utero-ovarian trouble causing intestinal obstruction, Mr. J. S. M'Ardle on, 26, 181.
Uterus, rupture of the, Dr. Hastings Tweedy on, 281.

Vaginal hysterectomy, Dr. Horne on, 281.
Ventilation of sewers, 439.
Vertebræ, diseased, report on Dr. Doyle's case of, 221.
Vital statistics, 71, 146, 231, 308, 391, 433, 464.

Warren, Dr. J. Collins, international text-book of surgery, *Rev.*, 383.
White, Professor A. H., continued fever caused by Gärtner's bacillus enteritidis, 221, 244.
William Pepper Laboratory of Clinical Medicine, contributions from the, *Rev.*, 109.
Windle, Dr. Bertram, handbook of surface anatomy and landmarks, *Rev.*, 425.
Wireless telegraphy in medicine, 220.
Wolf, Dr. C. G. L., laboratory handbook of urinary analysis, *Rev.*, 376.
Works on—diseases of the nose and throat, *Rev.*, 52; public health, *Rev.*, 102; nursing, *Rev.*, 125, 127, 128.
Wright's medical annual, *Rev.*, 54.

Year-book of Medicine and Surgery, Saunders', *Rev.*, 203, 277.
Year-book of the scientific and learned societies of Great Britain and Ireland, *Rev.*, 385.
Yearsley, Mr. Macleod, Broca's operative surgery of the middle ear, *Rev.*, 371.
Yellow Fever Expedition to Parà, Report of the, *Rev.*, 422.

Zuckerkandl, Dr. Otto, atlas and epitome of operative surgery, *Rev.*, 374.
Zymotic disease, shellfish the vehicle of, 177.

Printed by JOHN FALCONER, 53 Upper Sackville-street, Dublin.

THE

DUBLIN JOURNAL

OF

MEDICAL SCIENCE.

EDITED BY

SIR JOHN WM. MOORE, B.A., M.D., M.Ch., Univ. Dubl.;

EX-PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS OF IRELAND;
SENIOR PHYSICIAN TO THE MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY;
CONSULTING PHYSICIAN TO CORK-STREET FEVER HOSPITAL;
EX-SCHOLAR OF TRINITY COLLEGE, DUBLIN;
FELLOW OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON.

VOL. CXIV.

JULY TO DECEMBER, 1902.

DUBLIN:
FANNIN & COMPANY, Ltd., GRAFTON-STREET.
LONDON: SIMPKIN, MARSHALL & CO.
EDINBURGH: JAMES THIN.
PARIS: HACHETTE & CO.

1902.

DUBLIN : PRINTED BY JOHN FALCONER, 53 UPPER SACKVILLE-STREET.

NESTLE'S FOOD

An Entire Diet for Infants, Children, and Invalids.

"Renders valuable assistance in Wasting Fever."

"Beneficial as a diet in severe cases of Typhoid."

"Invaluable in Cholera Infantum."

Pamphlet containing Extracts from Standard Medical Works in which the above Testimony is given sent free, with Sample Tin, on application to
H. NESTLE,
18 Cannon-st.,
London,
E.C.

The attention of the Medical Profession is also drawn to

NESTLE'S SWISS (CONDENSED) MILK

Which, through its RICHNESS in CREAM and UNIFORMITY of QUALITY, has obtained the Largest Sale in Great Britain.

It can be used for all purposes of FRESH MILK.

Samples to Members of the Medical Profession only sent free on application to H. NESTLE, 48 Cannon-street, London, E.C.

The Best & Tasteless Natural Aperient

ÆSCULAP

"Possesses all the good properties claimed for other well-known aperient waters."—
Professor KARL von KETLI.

"Invaluable in all cases where a safe and efficient aperient is required."—
Professor FRIEDRICH von KORANYI.

"I prescribe Æsculap in preference to all the other saline waters."—
Professor ERNST SCHWIMMER.

"A reliable, safe, and efficacious aperient."—Professor AYTEL von BAUMS.

"Free from any foreign additions."—Professor LIEBERMANN.

"Free from any organic impurity."—Professor TICHBORNE.

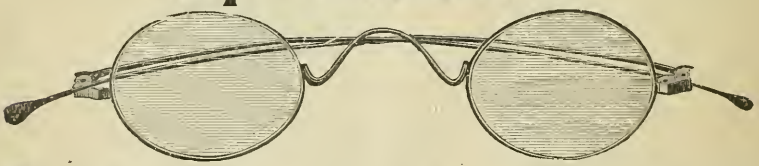
"**The clearest and purest of all the Hungarian aperient waters.**"—*The Hospital.*

THE BOTTLING AND MANAGEMENT OF THE ÆSCULAP SPRINGS AT BUDAPEST ARE CARRIED ON DIRECTLY UNDER ENGLISH SUPERVISION.

The ÆSCULAP BITTER WATER CO., Ld.,

LONDON, E.C., and BUDAPEST.

Spectacles.



FANNIN & CO. have recently added a Department for Spectacles to their Establishment, and keep in Stock a large and varied assortment of the different kinds in general use.

They will be pleased to send a number to select from, when required, to members of the Medical profession living at a distance.

Oculists' orders receive careful attention, their instructions are strictly followed, and usually completed in three days.

FANNIN & Co. trust, therefore, to be favoured with support from the profession for this branch of their business, and they feel sure they will succeed in giving every satisfaction.

FANNIN & CO., Ltd.,

Opticians, Surgical Instrument Makers, &c.,

41 GRAFTON-ST., DUBLIN.

BENGER'S FOOD

For INFANTS, INVALIDS. and THE AGED.

This delicious, highly nutritive, and most easily digested Food is specially prepared for Infants, and for those whose digestive powers have been weakened by illness or age.

The following letter is published by special permission of the Russian Court.

"Balmoral Castle,
"Scotland, 25th Sept.

"Sirs,—Please forward to Balmoral Castle one dozen 2/6 Tins of **BENGER'S FOOD** for **H.I.M. THE EMPRESS OF RUSSIA**, addressed to Miss Coster. We have received the box ordered from Peterhoff.

"Yours truly, **F. COSTER.**

The Lancet describes it as "Mr. Benger's admirable preparation."

The London Medical Record says :—"It is retained when all other foods are rejected. It is invaluable."

The British Medical Journal says :—"Benger's food has by its excellence established a reputation of its own."

The Illustrated Medical News says :—"Infants do remarkably well on it. There is certainly a great future before it."

A Government Medical Officer writes :—"I began using your Food when my son was only a fortnight old, and now (five months) he is as fine a boy as you could wish to see."

From an eminent Surgeon :—"After a lengthened experience of Foods, both at home and in India, I consider Benger's Food incomparably superior to any I have ever prescribed."

A Lady writes:—"Really I consider that, humanly speaking, Benger's Food entirely saved baby's life. I had tried four other well-known Foods, but he could digest nothing until we began the 'Benger.' He is now rosy and fattening rapidly."

BENGER'S FOOD is sold in Tins by Chemists, &c., Everywhere

WHOLESALE OF ALL WHOLESALE HOUSES AND SHIPPERS.

H. C. BARTLETT, F.C.S., Ph.D., says:—

"Your Food is certainly the best I ever examined."

SCOTT'S

M. O. F.

FOOD

"Unequalled"

. . . FOR . . .

INFANTS, INVALIDS, CHILDREN AND THE AGED.

☞ Important Medical Testimony.

DEAR SIRS,

I think it only right to tell you that I gave the sample tin of Scott's M.O.F. Food to a patient of mine who was suffering from Anæmia and severe Dyspepsia. I had tried every Food I knew of, Meat Juices, and others of every description, but the patient disliked all, and had pain after them. To my surprise, she not only liked your Food, but suffered practically no pain after it. Naturally, I am delighted with the result, and shall recommend your Food in all the numerous cases where such an article of diet is so desirable. I should only be too pleased to get your valuable Food better known.

(Signed) T. C—— G——, M.B., B.C. (Camb. Univ. and St Geo.).

Makes a delicious dish for Breakfast, Lunch, or Supper.

A FREE SAMPLE may be had by sending Post Card to

A. & R. SCOTT, Limited,

KEIR MILLS,

DUNBLANE, N.B.